

178152

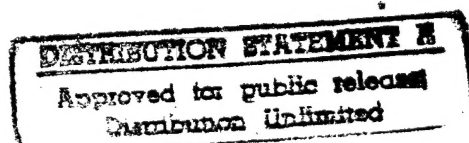
JPRS 83326

25 April 1983

# Worldwide Report

TELECOMMUNICATIONS POLICY,  
RESEARCH AND DEVELOPMENT

No. 268



19971229 163

DTIC QUALITY INSPECTED 8

**FBIS**

FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY  
NATIONAL TECHNICAL  
INFORMATION SERVICE  
U.S. DEPARTMENT OF COMMERCE  
SPRINGFIELD, VA 22161

3  
77  
A05

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS 83326

25 April 1983

# Worldwide Report

TELECOMMUNICATIONS POLICY,  
RESEARCH AND DEVELOPMENT

No. 268

DTIC QUALITY INSPECTED 6



FOREIGN BROADCAST INFORMATION SERVICE

25 April 1983

WORLDWIDE REPORT  
TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 268

## CONTENTS

## ASIA

## PEOPLE'S REPUBLIC OF CHINA

Wu Lengxi Outlines Plan for Radio, TV Reforms (XINHUA, 31 Mar 83) .....	1
Launching of Broadcasting Satellite Planned (XINHUA, 31 Mar 83) .....	3
Xinjiang TV Transmission Tower Completed (GANSU RIBAO, 1 Jan 83) .....	4
Briefs	
Jiangxi Satellite Ground Station	5
Beijing, Henan Coaxial Cable	5
Shaanxi Microwave Communications	5
Microwave Link	5

## EAST EUROPE

## ALBANIA

Developments in Color Television Broadcasting (BASHKIMI, 7 Mar 83) .....	6
---	---

## LATIN AMERICA

## BARBADOS

Phone Company Installing Fiber Optic Network System (ADVOCATE-NEWS, 11 Mar 83) .....	8
---	---



## BERMUDA

Phone Company Moves to Computerized Digital Service (THE ROYAL GAZETTE, 28 Mar 83) .....	9
Government Concerned Over Proliferation of Satellite Dishes (THE ROYAL GAZETTE, 24 Feb 83) .....	10
Briefs	
C&W Tower Approval	11
'GAZETTE' Satellite Dish	11

## COLOMBIA

Briefs	
Satellite Communications	12
New Inravision Director	12

## COSTA RICA

Briefs	
Communist Radio Equipment Seized	13

## CUBA

Modernization of Communications on Isle of Pines (Lucas Correoso Perez; GRANMA WEEKLY REVIEW, 13 Feb 83)	14
Briefs	
Intervision News Meeting Opens	16

## DOMINICA

Cable TV Moves Closer; Dish, Other Equipment Arrive (THE NEW CHRONICLE, 29 Jan 83) .....	17
---	----

## ST LUCIA

Report on Nation's New Digital Telephone System (THE CARIBBEAN & WEST INDIES CHRONICLE, Feb-Mar 83) ....	18
---	----

## NEAR EAST/SOUTH ASIA

## INTERNATIONAL AFFAIRS

Israeli Satellite Project 'Threatens' Arab Satellite (AL-SHA'B, 23 Mar 83) .....	20
---	----

## BANGLADESH

UNESCO Chief Discusses Problems of Information Flow (Various sources, various dates) .....	21
Press Institute Speech on 28 Feb	
Press Conference on 1 Mar	

## INDIA

INSAT -1A Failure Analyzed (THE HINDU, 24 Feb 83) .....	25
Official Tells Plans for Use of INSAT-1B (PATRIOT, 9 Mar 83) .....	26
India To Switch From U.S. to Soviet Satellite (PATRIOT, 9 Mar 83) .....	27
Development of Television in India Reviewed (G. N. S. Raghavan; THE TIMES OF INDIA, 9 Mar 83) .....	28
Briefs	
Maritime Satellite Plans	30
Kerala Rural Communications	30
PTI-Nepal News Agency	30
Information Policy	30
Link to South	31

## IRAN

Gorgan Television Station Begins Operation (Tehran Domestic Service, 2 Apr 83) .....	32
---	----

## PAKISTAN

Minister Talks About Telecommunications Expansion Plans (BUSINESS RECORDER, 21 Feb 83) .....	34
Pakistan, China Sign Agreement (DAWN, 27 Feb 83) .....	35
New Digital Electronic Exchanges Planned (DAWN, 23 Feb 83) .....	36
Questions Raised in Shoora on Telephone Department Efficiency (DAWN, 15 Feb 83) .....	37
Expansion Underway at Gateway Exchange (DAWN, 22 Feb 83) .....	38

## SAUDI ARABIA

### Briefs

Phone-System Order to Ericsson	39
--------------------------------	----

## SUB-SAHARAN AFRICA

## SOUTH AFRICA

Satellite Age Options Examined (Frederick Cleary; THE STAR, 12 Mar 83) .....	40
---	----

### Briefs

Computer Jobs Turnover	42
------------------------	----

## TANZANIA

IDA To Fund Installation of Digital Telephone Exchange in Zanzibar (DAILY NEWS, 4 Mar 83) .....	43
---	----

## ZAMBIA

Pan-African News Agency To Begin Operations May 1983 (AFP, 11 Apr 83) .....	44
--	----

## WEST EUROPE

## EUROPEAN AFFAIRS

Greenland To Receive TV Via Satellite From Alaska, Canada (Various sources, various dates) .....	45
Greenland Home Government Arranging, by Ulla Holtegaard Concern for Greenlandic Culture, Language	

## DENMARK

Final Approval Given for Trials of Local Radio, Television (Helle Ravn Larsen; BERLINGSKE TIDENDE, 5 Mar 83) .....	50
Standard Electric Kirk Exports Phone, Exchange Equipment (Poul Erik Jensen; AKTUELT, 14 Mar 83) .....	51
Phone Companies Cooperate in Nationwide Alarm System (BERLINGSKE TIDENDE, 15 Mar 83) .....	53
Briefs	
Marine Radios to Sweden	54
First Punchcard Phone System	54

FEDERAL REPUBLIC OF GERMANY

Nationwide Teletext System To Start in September 1983 (DER SPIEGEL, 14 Mar 83) .....	55
---	----

FINLAND

Briefs EBU Satellite .....	60
-------------------------------	----

GREECE

Radio Station Planned for Crete (TA NEA, 2 Mar 83) .....	61
---	----

Briefs TV Exchanges With Poland, GDR .....	62
---	----

NORWAY

Nation's Industry To Benefit From Tele-X Satellite Project (Knut Lovstuhagen; AFTENPOSTEN, 9 Mar 83) .....	63
---	----

PORTUGAL

Briefs Direct Intercontinental Dialing .....	66
---	----

SWEDEN

Demonopolization of State Telecommunications Agency Urged (Erik Liden; SVENSKA DAGBLADET, 7 Mar 83) .....	67
--	----

PEOPLE'S REPUBLIC OF CHINA

WU LENGXI OUTLINES PLAN FOR RADIO, TV REFORMS

OW312016 Beijing XINHUA in English 1343 GMT 31 Mar 83

[Text] Beijing, March 31 (XINHUA) -- Wu Lengxi, minister of radio and television, outlined a plan for all-round reforms of the radio and TV work in China today.

Speaking at a national radio and TV work conference, Minister Wu said upgrading of news broadcasts will receive first consideration in the effort to improve programs. The reform also calls for the streamlining of administrative set-up.

The minister stressed speed. He called on his staff to send out news while an event is still going on or immediately after it occurs. Major events or events of concern to the masses should, as far as possible, be televised live. He also noted the need to increase the number of news broadcasts in the timetables of radio and TV stations and update each broadcast.

Wu Lengxi said efforts will also be made to make international news timelier. More correspondents will be sent to countries in the Third World to give more adequate coverage of the Third World.

He also talked about wider range of subjects and livelier forms to satisfy the needs of people of different ages and jobs and diverse interest, from scholars, specialists to illiterates.

Wu Lengxi said, the Ministry of Radio and Television will establish a central radio and TV news center, which will guide and direct the news operations and commentary writing of the Central People's Broadcasting Station (the domestic service), the central TV station and Radio Beijing. The center will also provide radio and TV stations at provincial level with news and commentaries suitable for them.

Minister Wu emphasized that China's radio and TV broadcasting should have a Chinese and socialist nature. Its aim is to contribute to the upbringing of a generation with moral, intellectual, and physical development. It opposes programs spreading decadent outlook on world, society, and life, murder and violence scenes, and obscene programs. It should present facts, truth, opposes distortions, and is above spreading hearsay and creating sensations.

In the future, Wu Lengxi said, China will pay more attention to radio and TV broadcasting for minority nationalities so as to promote national unity, equality, and their common development. Efforts will be made to improve broadcasts to the people in Taiwan to facilitate the reunification of China. It is also necessary to improve the service

for the compatriots in Hong Kong and Macao and overseas Chinese to help them better understand their motherland.

In its foreign service, the minister said, Radio Beijing will continue to present China's current situation, policies, and propositions truthfully to help people in other lands better understand China and strengthen the Chinese people's friendship with them. Radio Beijing will continue to support just struggles of the people in the world, especially people in the Third World, oppose hegemonism, and safeguard world peace.

CSO: 5500/4133

PEOPLE'S REPUBLIC OF CHINA

LAUNCHING OF BROADCASTING SATELLITE PLANNED

OW311352 Beijing XINHUA in English 1337 GMT 31 Mar 83

[Text] Beijing, March 31 (XINHUA correspondent Yu Yuanjiang) -- China plans to launch a broadcasting satellite within several years to achieve nationwide radio and TV coverage, according to Wu Lengxi, minister of radio and television.

Addressing the opening ceremony of a national radio and television work conference, the minister said today that by the end of this century, China will build up an up-to-date radio and television network which will lay equal emphasis on domestic and foreign services and be supplemented by wired broadcasting stations. The broadcasts of Radio Beijing, foreign service, will use 45 to 50 languages as against 38 at present.

Wu Lengxi said China will adopt satellite and microwave transmission technologies and other latest scientific and technological achievements and modernize receiving, news gathering, editing and other links of the work.

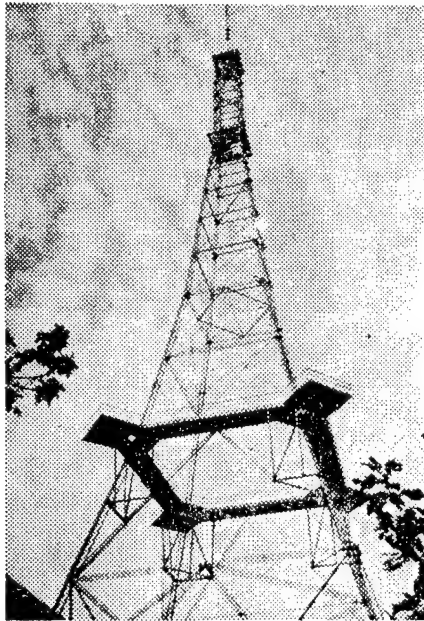
CSO: 5500/4133

PEOPLE'S REPUBLIC OF CHINA

XINJIANG TV TRANSMISSION TOWER COMPLETED

Lanzhou GANSU RIBAO in Chinese 1 Jan 83 p 3

[Text] Yining City of Xinjiang recently built a television transmission tower. The new tower will facilitate viewing of television programs by peasants and herdsmen of all nationalities in Yining, Huocheng, and Qapqal in the Yili Kazakh Autonomous Zhou.



[Photo caption] The newly-built television transmission tower in Yining City, Xinjiang Uygur Autonomous Region.]

CSO: 5500/4136



BRIEFS

JIANGXI SATELLITE GROUND STATION--Jiangxi's first set of earth satellite receiving equipment was put into operation recently. It is to receive meteorological information from the Japanese GMS-2 earth satellite. The installation of this set of equipment will help the province's weathermen report and forecast the weather, especially the position and movement of typhoons, more accurately than before. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 16 Mar 83 OW]

BEIJING, HENAN COAXIAL CABLE--Beijing, 17 Feb (XINHUA)--An 800-kilometer-long coaxial telecommunication cable has recently gone into operation linking Beijing and Zhengzhou in Henan Province, according to the Ministry of Posts and Telecommunications. At the present stage, the system can handle 300 telephone calls simultaneously. The operation is expected to relieve the strained situation in telecommunications in Beijing, Hebei and Henan Provinces, the ministry said. According to the ministry, the newly opened line is the northern section of the 2,720-kilometer-long coaxial cable with an 1,800-channel carrier system linking Beijing with Wuahn and Guangzhou cities, which is now under construction. The projected cable system--running across Beijing, Hebei, Henan, Hubei, Hunan and Guangdong Provinces--is the second in China. It is 1,000 kilometers longer than the first concentric trunk cable line between Beijing, Shanghai and Hangzhou. Upon completion, the 1,800-channel carrier system is scheduled to handle nearly 10,000 telephone calls simultaneously. Other services such as multiple-channel telegraph, data communications and wide-frequency-range facsimile are also scheduled to be introduced. Construction of the line was started in 1976, the ministry said. [Text] [Beijing XINHUA in English 1124 GMT 17 Feb 83 OW]

SHAANXI MICROWAVE COMMUNICATIONS--In recent years, Shaanxi Province has made rapid strides in the development of microwave communications. The province now has 24 microwave communications stations, totaling 170 microwave grade 1 telephone circuits, 18 grade 2 telephone circuits, and 129 rental telephone circuits (including broadcasting) and measuring 1,300 km in total length. Microwave communications are playing a bigger role in telecommunications, earning an annual income of 7.18 million yuan. [Text] [Xi'an SHAANXI RIBAO in Chinese 11 Mar 83 p 1]

MICROWAVE LINK--The 290-plus km Guangzhou-Swatow broadcast-television microwave link is in operation. It is capable of simultaneously carrying one color television program and two broadcast programs. [Text] [Beijing GUANGMING RIBAO in Chinese 6 Feb 83 p 2]

DEVELOPMENTS IN COLOR TELEVISION BROADCASTING

Tirana BASHKIMI in Albanian 7 Mar 83 p 1

[Article: "The Current Situation and Future Prospects for Our Television"]

[Excerpts] The editors of our newspaper have received letters from readers who would like to know about the current situation and future plans for our television broadcasting. Our editor had a conversation on this subject with Vladimir Shpuza, technical engineer of this institution [Albanian Television], who gave us the following information:

The history of Albanian Television began in 1959 when some television equipment was set up in Radio Tirana, in its old building. For several years, experimental work was carried on with limited and irregular schedules.

The beginning of regular programming coincided with the 6th party congress in November 1971, whose proceedings were transmitted, in their entirety, by television. In comparison with 1971, the number of hours of broadcasts has doubled and the range of broadcasts has been expanded extensively. In 1971 we had only one station while now we have an entire system of powerful stations and dozens of television relays.

The technical quality of studios and transmitters has been improved considerably during the past 11 years and, in particular, their stability has been improved. Interruptions of transmissions for technical reasons are minimal and amount to only a few minutes a year. The increase in the stability and the technical quality is linked to the rise in the scientific and technical level of the specialists and workers and the modernization of television technology. Even though there was a lack of experience, through work and effort, our television formed its national character. This illustrates the great concern of the party for this important system of propaganda which exerts a strong influence on the education and mobilization of the working masses.

The great majority of our workers did not have the necessary experience. During this period much work was required for them to assimilate the new technology of black and white television and for various installation projects, for television vans, for the construction of vertical cameras which are used in the transmission of still images, for the construction of television relays

to cover the country, as well as various cables linking some points in Tirana with the television center, which has facilitated the process of recording and transmitting directly from these points.

Various direct transmissions of sports activities, festivals, and congresses have been executed with good quality. At present we do not broadcast directly from other cities of the country but such transmissions will be made in the near future, with the construction of television studios connected with the central studio in Tirana by means of radio-relays, which are both receivers and transmitters and which operate on very short waves.

During the Seventh Five-Year Plan the transmission of color television broadcasts will begin. Some of these broadcasts have been executed and continue to be executed on an experimental basis. Detailed theoretical and technical studies have been made for the purpose of executing this important task. Our specialists have begun to install the new color television apparatus and soon this installation will be completed. By means of mobile television studios (television vans) we are currently transmitting in color and recording various broadcasts. Also, with the use of new television film equipment which we have installed, we are transmitting various films from our television or from the film studio, as well as foreign films in color. Also, we are working on changing technical environments and providing air conditioning and lighting equipment for the studios in accordance with the technological requirements of the new technology. With its own forces, the technical and engineering collective of television, in addition to installing new equipment, will equip for color the existing magnetoscopes and the old television vans.

When the new apparatus has been installed some 70-80 percent of our transmissions will be in color and one year later, 100 percent of the transmissions will be in color.

Nevertheless, the many black and white programs, which are in the archives, preserve their great historic importance and their value increases as the years go by. Even in the future, when we transmit only in color, there will be occasions when we will look with great satisfaction at the earlier black and white programs.

Black and white films and programs can also be transmitted on color television sets. On 1 November 1981 we began to transmit a number of programs in color.

CSO: 5500/3011

# PHONE COMPANY INSTALLING FIBER OPTIC NETWORK SYSTEM

Bridgetown ADVOCATE-NEWS in English 11 Mar 83 p 1

[Text]

The Barbados Telephone Company, Ltd., is now in the process of installing a new fibre optic network system between the Windsor Lodge Grazettes area and St. James.

The system, which will cost some \$1.5 million, is expected to become effective by August 7 this year, General Manager and Chief Engineer, Mr. Charles Evelyn said.

The advantage of the new system over the present normal wires, the general manager said, was that more information could pass through the optic fibre system. He noted some 672 simultaneous conversations could occur with two optic fibres, whereas only 24 conversations were possible on every two pairs of the wires now in use.

The new 18-fibre, six kilometre long link between Grazettes and St. James will provide an ultimate capacity of more than 5 300 trunks between the two exchanges, as opposed to the present 1 400 which currently exist."

The fibre optics system, the latest step in the Telephone Company's advancement programme, involves a "tightly focused beam of coherent light" which travels through strands of exceptionally pure glass the

thickness of a hair. This light, the general manager said, does not leave the fibre, but remains within it. He added the fibres were very strong, yet pliable.

The prime benefit, he noted, would be in the system extracting a "free 1 800 pairs" for use in the telephone service, which would mean a doubling of the service load now in use.

The new system, which will be part of one of the most modern telecommunication networks in the world would mean a long-run savings to subscribers, and the benefits Mr. Evelyn noted, would come out more as the market grew.

The system will also afford a market for other technologies in the future, particularly in the "high speed processing" requirements of the island.

The new system will allow a freeing up of the St. James Exchange Transmission equipment for expansion of the regular network in the northern parishes of St. Peter and St. Lucy.

Mr. Evelyn also noted a number of courses for formal training of local staff in use of the new system had been completed, and these included a fibre splicing course.

PHONE COMPANY MOVES TO COMPUTERIZED DIGITAL SERVICE

Hamilton THE ROYAL GAZETTE in English 28 Mar 83 p 1

[Text]

The Bermuda Telephone Company switched over to its new computerised digital system this weekend with just minor complications, Telco general manager Mr. Desmond Walker said last night.

Telco took equipment for 20,000 telephone lines out of service at midnight Saturday, and 15 minutes later transferred the entire telephone service to a digital system.

"It went very well," said Mr. Walker. "We had the minor problem, of course, but that was to be expected. The big test now comes on Monday with the first business day."

The new digital system will provide better transmission, quicker response times, and more facilities for telephone users, said Mr. Walker. The system, along with other improvements, is costing the company \$15 million.

Mr. Walker said that 100 employees worked through the night on Saturday, and 200 workers turned up for work on Sunday to help ease the birth pains of the new system.

Belgian and Canadian suppliers also worked with Telco over the weekend to make the transmission.

"We started at midnight and took 20,000 lines out and transferred them to the digital system in the space of 15 minutes," said Mr. Walker. "It's now a question of checking out everything."

Mr. Walker said that the telephone company's new Paget exchange became operational this weekend when 2,500 lines were switched from the Hamilton exchange. Another 2,500 lines will go to Paget on May 1.

The 1983-4 telephone books will be mailed in early April, and will take into account telephone number changes that occurred as a result of the switch to the new system.

CSO: 5500/7552

GOVERNMENT CONCERNED OVER PROLIFERATION OF SATELLITE DISHES

Hamilton THE ROYAL GAZETTE in English 24 Feb 83 p 1

[Text] Minister of Planning the Hon. Haskins Davis yesterday issued a stern warning to satellite dish owners obey planning rules.

Mr. Davis said he was extremely concerned at the proliferation of satellite dishes erected at locations which were not suitable.

He said he had instructed his technical officers to do everything they can to enforce regulations governing the erection of the dishes.

Those regulations included:

--that the Director of Planning must approve any satellite dishes when they will not be visible from off the owner's property;

--that the Development Applications Board must approve any satellite dishes when they will be visible from neighbouring properties--including private estate roads, provided there are no objections;

--that a hearing must be held if there are objections;

--that applicants must advertise their intention to erect dishes when antennae will be visible from a public road, the water, or a public place. If there are then objections, a hearing must take place.

The DAB has not yet decided whether a satellite dish--put up on a Reid Street roof by the VSB country and western radio station without planning permission--will have to come down. Mr. Kenneth DeFontes, president of the station's parent company, St. George's Broadcasting, said he had put the dish up to test reception of UPI news reports with the okay of planners.

Director of Planning Mr. Erwin Adderley later said that while that was true, technically Mr. DeFontes had acted without planning permission and if his DAB application failed, the dish would have to come down.

CSO: 5500/7547

## BRIEFS

C&W TOWER APPROVAL--Cable and Wireless has been granted permission to erect a microwave tower at its Devonshire site to replace a tower that will be rendered useless by the new \$18 million earth station. The Development Applications Board gave its unconditional approval to the new tower at a recent meeting. The tower is already on order. Cable and Wireless administration manager Mr. Geoff Townsend explained that the existing microwave tower currently receives signals from the NASA station on Nonsuch Island in the East End. But, he added, the path of the signal will be broken with the erection of the new earth station. As a result Cable and Wireless applied to erect a new tower at a location on the Devonshire site where it could receive uninterrupted signals from NASA. The new tower will be 150 feet in height--32 feet higher than the present tower. NASA uses Cable and Wireless to relay signals it receives from space back to the United States. [Text] [Hamilton THE ROYAL GAZETTE in English 31 Mar 83 p 6]

'GAZETTE' SATELLITE DISH--The Royal Gazette has been granted Planning permission to erect a 15-foot satellite dish to receive news transmissions subject to several conditions imposed by the Development Applications Board. The DAB ruled at its March 9 meeting that The Royal Gazette could erect the satellite dish, expected to cost \$20,000, subject to approval of screening material to be used to hide the five-metre diameter dish from the road. The DAB also ruled that a sample of the screening material must be erected on the roof of the Gazette building on Par-la-Ville Road in Hamilton one month before the dish is erected. "This permission is given entirely without prejudice to the need to obtain any requisite licence from the Government Telecommunication Officer," said the DAB in its decision. General Manager of The Royal Gazette, Mr. Keith Jensen, said that the dish would be placed on the roof of the Gazette building well back from the street where it would not be visible. "We would hope to have everything in place by mid-May," he added. "It will make us more competitive with the other local media." [Text] [Hamilton THE ROYAL GAZETTE in English 28 Mar 83 p 5]

CSO: 5500/7552

COLOMBIA

BRIEFS

SATELLITE COMMUNICATIONS--Puerto Carreno--The office of the commissioner today dedicated an automatic telephone dial system that will permit long distance communications via satellite with any part of Colombia and the world. The dedication took place at noon in the presence of local government figures. [Bogota Domestic Service in Spanish 1730 GMT 18 Mar 83]

NEW INRAVISION DIRECTOR--Fernando Calero Aparicio has been appointed new director of the Colombia National Radio and Television Institute (Inra-vision). He replaces Gustavo Castro Caycedo, who resigned. Castro Caycedo will continue in another government post. [PA020237 Bogota EL TIEMPO in Spanish 24 Mar 83 pp 1, 16A PA]

CSO: 5500/2058



BRIEFS

COMMUNIST RADIO EQUIPMENT SEIZED--The People United communists had radio equipment, a large quantity of propaganda and communist literature and photographs in a house in La Cruz, on the northern border. Materials seized by the security officials, the radio equipment was remarkable because it was brand new. All the equipment and the materials, including a giant picture of Lenin, were in the house of a well-known communist leader, who claims he knew nothing about the contents of the box left him by his comrades. According to an investigation by the security authorities, the communists were preparing a massive campaign at several levels in the northern border area. Apparently, the radio equipment would have been used to transmit Nicaraguan programs on Marxist-Leninist topics. In addition to propaganda, the authorities found bonds and stock for collecting funds. This proves that these activities had been planned to take place over a long period. [Text] [PA061649 San Jose Radio Reloj in Spanish 1200 GMT 6 Apr 83]

CSO: 5500/2056

## MODERNIZATION OF COMMUNICATIONS ON ISLE OF PINES

Havana GRANMA WEEKLY REVIEW in English 13 Feb 83 p 5

[Article by Lucas Correoso Pérez]

[Text]

● 2 260 800 pesos were spent in the last eight years to modernize the island's communications system ● Rapid progress in this field closely tied to region's social and economic development



THE INCREASE and modernization of the communications system on the Isle of Youth — once known as the Isle of Pines — is one of the major features of the economic and social changes brought about by the triumph of the Cuban Revolution. These changes put an end to a long history of poverty and neglect by successive governments and a state of virtual isolation from the mainland for almost 465 years.

The history of the island is marked by a period of complete surrender to foreign interests and total imperialist domination. For example, the first telephone exchange was set up in 1916, and the first resident to enjoy telephone service was a U.S. citizen by the name of Jack Lef-fengwell. In the early '40s, a U.S. firm built a telephone exchange on the island with a 24-line switchboard: the Isle of Pines Telephone Company.

At the triumph of the Cuban Revolution, the island had a telephone exchange handling 100 telephones, all of which were of the crank type. At the time, the island's population ran to 11 000. There was also a combined post and telegraph office (equipped with a key-operated Morse system) which handled some 800 letters a day. There was no such thing as a local press. The small radio station was privately owned and almost completely for commercial purposes.

### INTO THE 20TH CENTURY

In the last eight years alone, the Cuban government has spent 2 260 800 pesos in the development and modernization of the communications system on the island. This figure does not include the construction, installation and equipment of the television relay station atop Sierra Caballos — some 270 meters above sea level — done with the support of hundreds of young residents.

The island now has five automatic telephone exchanges handling 2134 lines. The new exchange in Nueva Gerona, built in record time in 1975, handles 1300 lines and provides communication with the rest of the country, along with long-distance calls to and from other countries. The special municipality of the Isle of Youth has one of the highest per capita telephone ratios in the country, with 6.9 for every 100 inhabitants.

Mail and telegraph service has also been modernized. There are now seven centers functioning on the island, three of them automated.

The newspaper Victoria (published daily since the last quarter of 1981) was founded in 1967 and has a present run of 9200 copies. The Caribe radio station is powerful enough to be heard in the southern provinces of Cuba. Many radio stations from the rest of Cuba are also heard clearly throughout the island.

The national dailies *Granma*, *Juventud Rebelde* and *Trabajadores* are also distributed on the island, along with Cuban and foreign magazines and specialized publications. The daily press circulation in 1982 was 18,800 copies, quite a large figure considering a population of 84,000.

The television relay station has made for a notable improvement in reception, including color TV. Previously, such reception was extremely limited.

#### **FUTURE PLANS**

The program for the modernization of the communications system during this five-year period envisages the installation of telephone lines for 11 schools in the countryside (bringing up the number of these schools with telephone service to 60); the addition of 400 lines to the exchange in Nueva Gerona; and the construction of another combination post office and telegraph office that can provide daily service for 3,000 persons.

Radio retransmission will be increased by 10 kilowatts to make possible the reception of more national grid broadcasts, and more newspaper and magazine stands will be built.

Investments planned through 1985 total one million pesos.

CSO: 5500/2052

## BRIEFS

INTERVISION NEWS MEETING OPENS--The 20th meeting of the Work Group on Exchange of Current Intervision News opened its sessions at Havana's Palace of Conventions with an agenda slated to last through next Thursday. The annual meeting's main objective is outlining the rules to be followed in the field of televised news to facilitate the successful exchange of news among member countries of the International Radio and Television Organization, parent institution of Intervision. Nivaldo Herrera, president of the Cuban Institute of Radio and Television, delivered the opening remarks at the meeting. He wished the participants success in the meeting, which for the first time is being attended by representatives from Afghanistan, Grenada and Nicaragua. Also attending the meeting are representatives from the European Broadcasting Union and from various agencies and television networks interested in the meeting. Attending as invited guests are the Soviet Union, Bulgaria, the GDR, Czechoslovakia, Hungary, Poland, Romania, Cuba, Vietnam and Finland, which are the nations that make up Intervision. In the ideological struggle being waged in the international arena, Intervision plays a primary role in broadcasting the reality of world news, which capitalist news agencies interested in monopolizing the news are attempting to block. [Text] [FL051105 Havana Domestic Television Service in Spanish 0100 GMT 5 Apr 83]

CSO: 5500/2055

CABLE TV MOVES CLOSER; DISH, OTHER EQUIPMENT ARRIVE

Roseau THE NEW CHRONICLE in English 29 Jan 83 p 1

[Text] Cable television moved closer to becoming a reality in Dominica with the arrival here of some major pieces of equipment that constitute what the industry refers to as the "head-end". Mr. Ronald Abraham, the Managing Director of Marpin T.V. Co. Ltd. local pioneers in bringing the new technology to Dominica, says the company now is in possession of the twenty three foot diameter dish and the receiving and modulating equipment. According to Mr. Abraham, installation of the dish will commence as soon as details on the leasing of a suitable site have been completed.

The company has had to reschedule its start-up date of television reception to towards the end of April. However, the realisation of that schedule will depend on the rapid processing of local requirements. Meanwhile the company is accepting registration of customers at its temporary office, Maroni Electronics, located in Fond Cole. The service will be provided to customers at a monthly rental of thirty dollars with a connection fee of \$150.00.

At the commencement of broadcasting, the company will provide viewing on four channels, and intends to increase the number of channels available for viewing as time goes on. Initially, the area of coverage will extend from Belfast to Newtown. A company spokesman said that the rapidity with which any area receives hook-up service, will depend on the number of customers in the area requesting the service.

Cable television is a new and rapidly improving technology through which countries such as Dominica can enjoy viewing entertainment and newscasting without having to invest in expensive production studios and facilities. Programs will largely originate in the United States and the channels that will be available for local viewing have been carefully selected to ensure compliance with that which is wholesome and acceptable to local tastes and beliefs; even these channels will, however, be closely monitored to ensure maintenance of quality viewing.

CSO: 5500/7536

REPORT ON NATION'S NEW DIGITAL TELEPHONE SYSTEM

London THE CARIBBEAN & WEST INDIES CHRONICLE in English No 1572, Feb/Mar 83  
Supplement p xiii

[Text]

The inauguration of the Castries telephone exchange by Prime Minister John Compton in early January marked Saint Lucia's entry into the era of digital telecommunications.

Saint Lucians now have access to one of the most advanced telephone switching systems, not only in the Caribbean, but in the entire world.

Digital telephony converts speech into digits, rather than employing traditional voice signals. These digits are transmitted and then re-assembled at the other end. As a consequence many simultaneous telephone conversations can be held over two pairs of lines. Not only is this method quicker than the analogue system which it replaces, it offers clearer voice reproduction and is less susceptible to noise and other interruptions.

Cable and Wireless, which has been providing Saint Lucia's internal communications since 1966 and external links for over one hundred years, decided to install this advanced system when demand outstripped the capacity of the former electromechanical exchange.

The French-manufactured digital exchange is capable of handling 20,000 lines. Initially, 4,500 lines were connected, but that figure will increase to nearer 7,000 in the near future, as the system's first priority has been to satisfy the substantial waiting list. At present, telephone penetration in the island stands at 8.3 per 100 of the population. This compares with 2.5 per cent in major areas of the developing world.

Experience has shown that the introduction of international direct dialling (IDD) invariably leads to a rise in telephone traffic. IDD, perhaps the most obvious advantage of the computerised system, extends to all subscribers the ability to dial direct to destinations all over the world.

It is predicted that growth in international traffic will be buoyant over the next five years. This has certainly been the case previously: the volume of international traffic increased from approximately 1.5 million minutes in 1977/78 to over 3.5 million minutes in 1981/2.

Technical difficulties have unfortunately precluded the construction of a comprehensive national network and at the moment it is the northern section of the island which is served by the digital system. Cable and Wireless foresees that technological progress in the next few years will facilitate the extension of the system on a cost effective basis.

This is the first digital telephone system to be installed by Cable and Wireless in the Caribbean, although similar networks are shortly to be introduced in Saint Vincent and the Cayman Islands. The Saint Lucia system has already involved the company in an investment of EC\$25m. Before committing such resources, the Government's approval was secured for the project, which, in Mr Compton's words "will be a major factor in our development."

Fast and reliable telecommunication links, it is generally agreed, are essential for the healthy development of any country's trade and commerce. The digital system takes Saint Lucia one step nearer the information society by providing the means of transmitting and receiving high speed data and enabling computer to computer communication. While such usage will doubtless be limited in the early days, the capability is there to be exploited as opportunities arise.

At the opening ceremony, Mr Eric Sharp, chairman and chief executive of Cable and Wireless, said the new telephone service "demonstrates our confidence in the future of Saint Lucia, but like any other business activity it must in the end provide a reasonable return on investment." Should that return be forthcoming, he stressed that the company would be "encouraged to continue the expansion of digital service to the rest of the island."

CSO: 5500/7551

INTERNATIONAL AFFAIRS

ISRAELI SATELLITE PROJECT 'THREATENS' ARAB SATELLITE

PM061013 Algiers AL-SHA'B in Arabic 23 Mar 83 p 12

[Unattributed report: "Israel Threatens Arab Satellite"]

[Text] The day before yesterday the Arab League circulated a memorandum among its members regarding the question of Israel reserving locations for two satellites in the same orbit as the Arab satellite, informing them that the subject has been included on the agenda of the 97th session of the Arab League Council due to begin its meeting on 28 March and drawing their attention to the importance and seriousness of the matter.

The Arab Institute for Space Communications had submitted a memorandum on the subject to the Arab League Secretariat which said: At a time when preparations are underway to launch the Arab satellite the Zionist entity has set up an Israeli space committee. Last February a request was made to the International Telecommunications Union [ITU] for the registration of a space network called "IMS," which the ITU circulated among the member states. The circular draws attention to the fact that the Israeli administration wishes to inform the ITU that it has two satellites for local communications services and that there is surplus space in these satellites which the administrations concerned can use for their local purposes.

The secretariat report said that the fact that the orbital position allocated to these two satellites is no different from the position of the Arab satellite and that signals from the two satellites will interfere with signals of most satellites in the region shows that the Zionist entity has deliberately made its satellite cover the Arab satellite's space range so as to be able to intercept its signals in order to monitor Arab telephone communications and pick up direct television transmission.

The report said the seriousness of the Israeli measure lies not only in the fact that the Israeli satellite will be a source of interference between Arab ground stations and the Arab satellite but also in the fact that it involves political and information aspects in that it imposes technical coordination between the Arab and Israeli sides through the satellite and the ground stations in addition to the possibility of the Israeli satellite being used in an intellectual and cultural campaign aimed at the values and traditions of Arab society.

CSO: 5500/4612



# UNESCO CHIEF DISCUSSES PROBLEMS OF INFORMATION FLOW

Press Institute Speech on 28 Feb

Dhaka THE BANGLADESH TIMES in English 1 Mar 83 pp 1, 8

[Text]

Mr. Amadou Mahtar M'Bow, Director-General of UNESCO, said in Dhaka on Tuesday that 'Dhaka Declaration' on free flow of information adopted in January last, was being examined and considered by the UNESCO.

The Director-General assured that the UNESCO would at any rate try to help build communication and information network in the developing countries.

Mr M'Bow further said that his organisation would make all out efforts to ensure free flow of information by implementing the measures of new information and communication order.

Addressing a Press conference at the State Guest House at the end of his five day visit to Bangladesh, the UNESCO Director-General said that he was not satisfied with the freedom of the Press in the present day world. He emphasised the need for development of rural Press.

Mr Amadou Mahtar M'Bow, detailing the UNESCO's success said that UNESCO had made significant achievements in the field of education science and technology. He said the UNESCO had made it incumbent for the member-states to maintain equality of education.

Speaking on culture the Director General said that all cultures are equal in dignity. He called for enriching culture through mutual exchange and not by domination of culture.

In the field of science and technology he said that the programmes of UNESCO was fully successful. He termed UNESCO as intellectual institution within the framework of the United Nations.

Mr Amadou Mahtar M'Bow

said that the UNESCO wanted primary education be generalised and illiteracy be removed from world specially in the Third World countries. According to him there are 800 million illiterate people in the Third World bulk of which are in Asia.

B&I adds: Summing up his visit Mr. M'Bow said it had been "very well" and added during the stay he was able to hold several sessions of discussion with the Bangladesh leaders and functionaries.

The Education Minister, Dr. A. Majeed Khan was also present at the Press conference.

After the Press conference the Director General signed a memorandum of understanding and an agreement with Bangladesh on Mohila Polytechnic Institute in Dhaka.

Besides holding formal talks with the Education Minister, Dr. A. Majeed Khan, the UNESCO Director General, who was accompanied by Madame M'Bow, called on the Chief Martial Law Administrator, Lt. Gen. H. M. Ershad, met the Minister for Information and Broadcasting, Minister for Foreign Affairs and the Minister for Finance and Planning.

He also attended the millennium celebration of Buddhist saint Arish Divankar at the Kanakpur Buddhist Monastery, visited the Dhaka Museum and historical monuments of Shah Gumbad Mosque at Bagerhat and Paharpur Buddhist Monastery. He also met leading scientists, educationists, intellectuals, writers and cultural personalities of the country at different functions and receptions arranged in his honour.

Mr. M'Bow gave a talk on "The New International Information and Communication Order" at the Press Institute of Bangladesh and also addressed the members of UNESCO Commission in Bangladesh and its sub-commissions.

Turning to his visit to the Dhaka Museum, the UNESCO Director General noted with satisfaction that the Museum was constructed with the means available in the country. We would cooperate with Bangladesh to see that the museum flourished, he said.

Referring to the activities of UNESCO, Mr. M'Bow said that the achievements of UNESCO in the field of education had been "eminently positive." In the field of culture there has also been "notable achievements," he added.

He also mentioned the UNESCO programmes for preservation of historical monuments in Indonesia, Pakistan, Thailand, Vietnam and Egypt and UNESCO activities in the field of development of science and technology within the framework of national programmes.

### **M'Bow leaves for Pindi**

BSS adds: The Director General of UNESCO Mr. Amadou Mahtar M'Bow left Dhaka on Tuesday for Pakistan.

The UNESCO Director General, who was accompanied by Madame M'Bow, was seen off at the airport by the Education Minister Dr. Abdul Majeed Khan and high officials of the Ministries of Education, Sports and Culture and Information.

Press Conference on 1 Mar

Dhaka THE BANGLADESH OBSERVER in English 2 Mar 83 pp 1, 8

[Text]

"Freedom of information is no monopoly. Such freedom can be said to exist only when everyone can express everyone's vision of things, each people its own vision of the world, and be fully aware of what is going on".

Mr Amadou Mahtar M'Bow, Director General of UNESCO, said this while he was speaking on the new international information and communication order at the Press Institute on Monday evening.

The visiting UNESCO chief outlined why and how the call for a new world information order came to be linked up with that of a new world economic order: UNESCO's constitutional commitment to contribute to peace and cooperation between nations, and encourage free flow of knowledge and ideas.

In his address Mr M'Bow also replied to some criticisms directed against UNESCO, and expressed his determination to respect and implement the decisions adopted by the agency.

Information Secretary Mr A.B. M. Ghulam Mostafa also addressed the function presided over

by Mr Abdul Wahab, Chairman, Press Institute of Bangladesh.

Mr Amadou Mahtar M'Bow described how the people of Third World countries were being affected by news dissemination under the prevailing order, they liked or not.

### **NEWER DIMENSION**

With information and communication having acquired newer dimensions because of rapid development of technology, "we probably live in a society of communications", he said, but deploring that the prevailing order upheld imbalance in the flow of information.

Most of the news flow from the developed to the developing countries. Such flow of news was more frequent than what was between neighbouring countries of the third world because the news agencies were located beyond their reach, he said.

Yet more distressing feature of the prevailing order was that news about the developing countries tended to highlight the negative aspects that were not always correct. Such news often did not correspond to the reali-

ties of the developing countries, and there was little efforts to understand the very difficult situations obtaining there.

Elaborating on the bad effect of this imbalance in the flow of information Mr Amadou Mahtar M'Bow said message emitted by the television in the developing countries had more influence than school instructions on children.

#### **NEW ECONOMIC ORDER**

It was on the basis of these concerns that the developing countries linked the call of a new international information order with that of a new international economic order, and the UNESCO appointed the international commission for the study of communication problems (Macbride Commission), he pointed out.

Mr M'Bow said his agency was trying to help change the prevailing order for the new one by (a) ensuring that the professional communicators and the public at large became aware of the situation, and (b) helping the developing countries organise their mass communication systems by establishing institutions, imparting training to all type of personnel engaged in dissemination of information, and communication.

The UNESCO D.G. said nothing could be more false than the criticism that his agency was trying to bring communication under government control.

#### **DOUBLE STANDARD**

He said the critics referred to the setting up of news agencies by government in certain countries. But he pointed out that there could not be double standards in this regard, as there was not a single country in the world that had not its own radio and television network. Most of the Third World countries had such government owned institutions during their colonial past, and thus others considered it normal to set up those, he said.

As far as UNESCO was concerned, "We do not bother to know who created such institutions. The basic problem is whether the journalists are left free to carry out their professional activities. Whether pri-

vately or government owned communication institutions do not automatically fit" into what UNESCO stands for, he said.

Clarifying he said the journalists should have the right to write what they consider to be right. What the journalists write are on the basis of their sources, and if the sources were correct, "I think no one can challenge or affect his job".

The question of responsibility came when purely private things were taken to reporting. Sometimes reports on scandals were defended on the argument that the public wanted those. It was here that UNESCO called for responsibility of the journalists. But he pointed out that in the developed countries too there were government complaints that mediemen disseminated damaging information on opportune moments.

He said that UNESCO was also criticised for its concern about protection of journalists.

Mr. Amadou Mahtar M'Bow, however, said that the vigorous criticism against UNESCO and the Macbride Commission report had helped to encourage university professors and researchers to look into what was really going on. He hoped that the Press Institute would organise a seminar on the contents of the reports in Bangladesh.

#### **DHAKA DECLARATION**

Referring to a demand the UNESCO D.G. assured to carefully examine the Dhaka Declaration adopted at the seminar on "flow of information among the south Asian countries" and see to it that the seminar could be followed up.

Earlier in his address Mr A. B. M. Ghulam Mostafa said that Bangladesh was fully committed to the declaration of UNESCO about "a new world information and communication order," and as a member of the Inter-Government Council of IPDC (International Programme for the Development Communication), was happy to play its role in the deliberations of the body in other forums.

He recalled with gratitude the assistance being received by the Press Institute from UNESCO and UNDP and hoped such assistance including fellowships and training awards would continue.

The Information Secretary emphasised the need for strengthening the lines of co-operation among media personnel in different countries of the world for increasing their capabilities in reducing the imbalance in the flow of information between developed and developing countries, and also between urban and rural areas.

Mr. A.B.M. Ghulam Mostafa hoped that the UNESCO would come forward in a positive manner to remove the difficulties mentioned in the Dhaka declaration to reduce the imbalance and disparities in the flow of information.

#### TOUR PROGRAMME

BSS adds: The Director General of UNESCO Dr. Amadou Mahtar M'bow, the fourth day of his visit to the country, this morning visited the Shat Gambud Mosque at Bagerhat and Paharpur buddhist monastery in Rajshahi.

Minister for education, Dr. Abdul Majeed Khan and Mrs. M'Bow accompanied the director general.

In the afternoon Dr. M'Bow met the office-bearers of Bangladesh National Commission for UNESCO and subcommittees at the commission's office here.

Besides the Education Minister the meeting was also attended by the secretary of the education ministry and vice-chancellor of Dhaka University.

Before his departure for Karachi ending the five-day visit to the country the director general will address a press conference at 9.00 a.m. at the State Guest House Padma.

# INSAT-1A FAILURE ANALYZED

Madras THE HINDU in English 24 Feb 83 p 10

[Text]

NEW DELHI, Feb. 23.

The Insat-IB (Indian National Satellite) spacecraft, expected to be delivered by March end, will be launched by August or September.

This was stated in a report on the "results of Insat-1A failure investigations presented to the Lok Sabha on Wednesday by the Minister of State for Science and Technology, Mr. Shivraj Patil.

The report said the integrated Insat-IB spacecraft, with all hardware modifications resulting from Insat-1A experience and failure analyses, has already completed system-level thermo-vacuum and dynamic tests.

The recommendations of the Failure Review Committee of Insat-1A has been accepted by the Department of Space for corrective action on Insat-IB.

The essence of the committee's findings is that the basic design of Insat-1A was sound. The loss was traceable to a complex inter-play of relatively minor spacecraft deficiencies, and unforeseen events, each of which under normal circumstances were extremely unlikely to cause a catastrophe.

All deficiencies and lacunae in the ground control software and contingency procedures are being removed and corrected. The Department of Space is effecting a thorough review of the modified ground control software and contingency procedures for Insat-IB.

The postponement of launching of Insat-IB from June to August-September was consequent on the delay in the United States Space Shuttle (STS-8) flight.

The report said the Department of Space has claimed as insurance \$65.55 millions (Rs. 66 crores) for the failure of Insat-1A which was declared a "total loss."

CSO: 5500/7095

## OFFICIAL TELLS PLANS FOR USE OF INSAT-1B

New Delhi PATRIOT in English 9 Mar 83 p 6

[Text]

India has decided to use a Soviet telecommunications satellite for networking television stations in the country, according to official sources, reports PTI.

The services of the US built INTELSAT Corporation satellite presently used for domestic telecommunications and television broadcasting are expected to be terminated from April.

The Soviet Union has offered India the services of one of its geostationary satellites over the Indian Ocean for ten months for broadcasting domestic television programmes.

Official sources said that arrangements have already been finalised with the USSR for using the Soviet satellite between March and December this year.

The use of the Soviet satellite for domestic television services was first announced by Prime Minister Indira Gandhi in the Lok Sabha last week.

Mrs Gandhi said that the Soviet Union has provided one transponder on board its satellite for "certain essential limited satellite based television networking services in the country from March to December 1983."

Experiments in television networking using the Soviet sa-

tellite are right now going on.

During March, domestic telecommunications services will be provided by both the Soviet and INTELSAT services satellite and from April the functions will be carried out entirely by the Soviet satellite.

Official sources said that the switch from INTELSAT satellite to Soviet satellite became necessary since the power output of the INTELSAT satellite had been reduced.

The commercial terms offered by the Soviets are also said to be better than those of the INTELSAT Corporation.

After the failure of the Indian satellite INSAT-1A in June last year, India had sought the use of a Soviet satellite for television services during the Asian Games in November last.

For technical reasons the Soviet Union could not make its satellite available before March 1983.

The Soviet satellite is expected to be used for television services until December by which time India's own satellite (INSAT-1B) is expected to become operational.

INSAT-1B, being built by the Ford Aerospace Corporation of the United States, is expected to be launched in the third quarter of this year.

CSO: 5500/7100

## INDIA TO SWITCH FROM U.S. TO SOVIET SATELLITE

New Delhi PATRIOT in English 9 Mar 83 p 7

[Text]

CHANDIGARH, March 8 — Union Deputy Minister of Electronics Dr M S Sanjeevi Rao said that the launch of INSAT-1B by July next would help in the spread of literacy, especially in rural areas.

Inaugurating a two-day seminar on 'Rural Development through Electronics' here yesterday, Dr Rao said the rate of school-going children has been steadily going up. However, the population growth has been negating the endeavour to give educational facilities to the children. With the passage of time, the necessity for adult literacy has also been felt.

Electronics, he said would have to play a meaningful role in spreading literacy among the adult population, particularly among women.

He said a major step in this direction was the Government's decision to install low power transmitters to cover a wide range of population which could have access to information.

Speaking on the occasion Union Secretary for Electronics Dr P P Gupta warned against

use of electronic devices not conducive to needs of the country.

The infra-structure should be so planned, he said, as to become part of our total environment. Since we aim at improvement of the quality of life we must plan it in such a way that sophisticated instruments are not allowed to remain in disuse as, unfortunately, was the case now. About 30 to 40 per cent of such instruments were lying idle, he said.

He said all factors including variation of temperament and quality of human material would have to be kept in mind before attempting the use of electronics in a big way. Nonetheless, there was big scope for their use in almost every sphere, more so in food production, preservation, health and spread of education.

## COLOUR TV

Mr Sanjeevi Rao assured all support to the Punjab Government for setting up a coloured TV picture tubes project. A letter of intent for this has already been issued.

Dr Rao gave the assurance to Punjab Chief Minister Darbara Singh.

CSO: 5500/7100

## DEVELOPMENT OF TELEVISION IN INDIA REVIEWED

Bombay THE TIMES OF INDIA in English 9 Mar 83 p 8

[Article by G. N. S. Raghavan]

[Text]

**W**INDING up a symposium in Delhi on the occasion of the ninth International Film Festival of India, Mr. S. B. Lal, secretary of the information and broadcasting ministry, said that soon there would be 500 TV stations in India.

Five hundred TV stations should take India into the front rank of media-rich countries, just as we are already among the top ten industrialised countries of the world.

There was also a hint of export-oriented growth. *Chitrahaar* programmes are popular in China and South-East Asia, Mr. Lal said, and its videotapes would be sold.

The chief secretary of Bihar, Mr. Lal said, had written to him that the state would meet the cost of 20 stations, at Rs. 15 lakhs each. There were many industrial projects in the public sector in Bihar which should be able to contribute to the expansion of television. The I & B secretary also referred to an offer by the Rajkot municipal corporation to pay for the opening of a Doordarshan Kendra.

The prospect of an Indian version of "pay TV" dismayed Mr. Basu Bhattacharya. "Let us," the renowned film-maker exclaimed, "also have TV where people cannot pay for it."

At the end of 1981, there were 3,800 community receivers (as against 3,801 at the end of 1980) to enable TV viewing by those who cannot afford to buy their own sets. Individually owned sets numbered about 16.7 lakhs (as against 15 lakhs at the close of 1980). The number of individually owned sets today is likely to be well above 20 lakhs, with no increase in the number of community viewing sets.

### Political Compulsion

About 550 of the community TV sets have been installed, and maintained, by Doordarshan in villages

within the reach of signals from the Srinagar TV station. The reason is obviously political; to counter Pakistan TV which can be received in the valley.

A similar number of community sets serve the people in villages within the range of the low-power TV transmitter at Pij, in the Kheda district of Gujarat. This is the outcome not of political compulsion but of the social concern of those who man the Space Applications Centre, of the Indian Space Research Organisation. Established during the Satellite Instructional Television Experiment of 1975-76, the Pij station is unique among Indian Doordarshan Kendras which produces some programmes for its rural viewers in the locally spoken Chauratari dialect.

Outside these two islands of socially relevant television, there are about 2,700 community viewing sets as against the 550,000 and more villages in which two-thirds of India's population live.

Indian television is financed by the taxpayer. With indirect taxes accounting for the bulk of Central revenue, everyone who buys a matchbox or buys a bottle of kerosene is paying for Doordarshan.

The new sources of funding TV expansion hinted at by the I & B secretary also represents public money, even if it does not come out of the Central exchequer. Any diversification of the funding of TV expansion on the lines envisioned by Mr. Lal will be of interest only to the accountant general, central revenues and to his state counterparts.

The alternative course is to use this potent medium to promote adult literacy and make the rural population; specially the economically and socially weaker sections, aware on their political, social and economic rights including minimum wages, credit assistance from the banks, and a wide range of schemes for marginal



farmers and agricultural labourers. Few of the intended beneficiaries now know anything about all this.

## Social Utilisation

The communication of such information, relevant to the development of rural India, will necessarily have to be on a decentralised basis. The problems of decentralised communication were well perceived by the working group on radio and television which was formed by the Janata government in 1978. But the Janata government, riven by dissension, was tardy in acting on the working group's report, which has since been shelved.

One of the reasons why Indian television has grown in an ad hoc fashion is the non-availability of policy advice to ministers of I & B from professionally competent persons committed to the social utilisation of the media.

In a democracy like ours, the minister in charge of information and broadcasting is a generalist who is a bird of passage. But there is no reason why the ministers should receive policy advice from other birds of passage. However, that is how it has been.

Administrative birds of passage, as secretaries and joint secretaries, are expected to give policy advice to the minister. These administrators (initially from the I.C.S., then the I.A.S. and now also from the allied Central Services), may come to I & B from the petroleum ministry and move on after a few years to defence. This is an absurd arrangement.

One of the unanimous recommendations of the Second Press Commission is that "on the pattern of the railway ministry, there should be an information board comprising senior professional heads of the media units, to tender policy advice to the minister, with the secretariat of the ministry attending only to financial and administrative matters, not policy planning."

This recommendation needs the urgent consideration of the government at the political level. It should not be left to be 'processed' by the very officials whose sense of importance will be deflated if the recommendation is acted on.

## BRIEFS

MARITIME SATELLITE PLANS--India plans to provide an international maritime satellite in the Indian Ocean region, reports PTI. The 1983-84 budget makes a provision of Rs 2,50,60,000 for the purpose. The expenditure is for the Overseas Communication Service to acquire a plot of land for putting up a coastal earth station at Vashi in New Bombay. The budget also provides for the Communications Ministry Rs 1,50,00,000 for a westward extension of the submarine cable in the Indian Ocean linking Penang with Madras. The extension would take the cable link of a suitable capacity from Bombay to the Gulf region (UAE) and through the Bombay-Madras microwave link. [New Delhi PATRIOT in English 1 Mar 83 p 7]

KERALA RURAL COMMUNICATIONS--The development of trade and commerce in rural India is expected to go up with the decision of the P & T department to provide electronic communication system, reports our special correspondent. The Kerala State Electronic Development Corporation (KELTRON) has been given a letter of intent to manufacture electronic rural automatic exchanges (ERAX). The annual capacity will be 50,000 lines. ERAX will provide a communication system based on the electronic switching principle with access to city exchanges. The network will also provide abbreviated dialling and automatic call back facilities. [Bombay THE TIMES OF INDIA in English 4 Mar 83 p 19]

PTI-NEPAL NEWS AGENCY--KATHMANDU, March 4 (PTI)--The Press Trust of India (PTI) and the official Nepalese news agency (RSS) today signed here an agreement for exchange of news service. General Manager of PTI N. R. Chandran and General Manager of RSS Radhesyam Bista signed the agreement. This agreement will facilitate a greater flow of information and would enable the RSS to participate in the dissemination of news from the non-aligned news pool and the Asian news exchange network service. [New Delhi PATRIOT in English 5 Mar 83 p 3]

INFORMATION POLICY--Prime Minister Indira Gandhi has called for "a change in the information systems" as, in her view, western media "are quite impervious to the heroic endeavours" of the non-aligned and other developing countries to build their societies against tremendous odds, reports PTI. This observation was contained in a message Mrs Gandhi gave for special issue of the Working Journalist being brought out on the occasion of the New Delhi summit of the non-aligned movement. The Working Journalist, an organ of the Indian Federation of Working Journalists, in its special number mainly deals with the new

international information and communication order. Mrs Gandhi said the western media seem to be interested in reporting "only our inadequacies" and it was therefore necessary to bring about a change in the "information system now prevalent". She stressed the urgency for evolving ways "by which there could be greater mutual knowledge of happenings and trends in other countries". [New Delhi PATRIOT in English 5 Mar 83 p 3]

LINK TO SOUTH--CHANDIGARH, March 9--With the inauguration of a new crossbar telephone exchange with 6,000 lines, South Indian centres like Madras and Bangalore will be able to get in touch with Chandigarh and Punjab towns quickly. Mr. N. V. Gadgil, Union Minister of State for Communication, inaugurated the Rs. 5-crore exchange by releasing 3000 new connections. The equipment was imported from Japan. It would facilitate instant connection with Delhi, Madras, Bangalore, Bombay and Calcutta on the STD system by skipping the intermediary exchange in Ambala. [Madras THE HINDU in English 10 Mar 83 p 16]

CSO: 5500/7101

GORGAN TELEVISION STATION BEGINS OPERATION

GF031332 Tehran Domestic Service in Persian 1030 GMT 2 Apr 83

[Text] On the auspicious and blessed day of the Lord, 1 April, the anniversary of the establishment of the Islamic Republic in Iran, a powerful 800-kw transmitter in Bandar-e Torkman, at Gorgan Center, which was completely installed by the faithful, Muslim technicians and experts of our country, was inaugurated in ceremonies attended by the managing director of the Voice and Vision of the Islamic Republic of Iran, Mr Mohammad Hashemi, and officially began operations.

During the ceremonies in which a number of Sunni and Shi'ite clergymen and administrative officials were present, following the recital of the Holy Koran by the Sunni Friday Imam of Bandar-e Torkman, Mr Hashemi in a speech offered his congratulations on the occasion of 1 April to the Imam of the Ummah and the Ummah of the Imam and the residents of Torkman Sahra. Noting the presence of brother clergymen from both sects, he proclaimed the blessed verse "and hold fast, all together, by the rope of God and not be divided" [Koranic verse].

He then referred to the police of divide and rule by the colonialists and said: The colonialists, in order to control the destiny of the majority of the countries of the world and plunder their wealth, reached their inauspicious goals for many years by creating division among various religions and tribes. However, with the blessing of the establishment of the Islamic Republic of Iran, the Muslim Iranian Ummah, be they Tork, Kord, Fars [Persian], Torkman, Arab or any other group, were able together to trample over this policy of the world plunderers and colonialists and united grab the rope of the Al-mighty and Islamic principles and bring the infant Islamic Republic to this great victory by sacrificing their blood and that of their children. God willing, with such unity and coordination, the Muslim Ummah will, in the near future, throw all the oppressors and devisive enemies of humanity into the trash bin of history.

The powerful 800-kw transmitter of Bandar-e Torkman was then opened by the Sunni Friday Imam of the city and officially started work by broadcasting the anthem of the Islamic Republic of Iran and recital of some verses from the Holy Koran.

It should be noted that the Bandar-e Torkman Radio Station operates two 400-kw transmitters which have a total broadcast power [Qodrat-e Tasha'sho'] of 2,400-kw. The station transmits the Torkman language programs of the Voice of the Islamic Republic of Iran on 747 khz during the day and on 1,449 khz during the night. [No other times mentioned.]

This center started experimental broadcasts during January 1983 and started official operations on 1 April. The installation work started in May 1982 by experts and employees of the Voice and Vision, and considering the complete secession of all ties with the manufacturer of the transmitters and current shortages, the operation was carried out with complete success and according to the plan.

The entire installation and operation of the center, considering the high power, two frequency transmitters and a very complicated directional antenna, has made the Voice and Vision reach a new level of capability.

CSO: 5500/4734

## MINISTER TALKS ABOUT TELECOMMUNICATIONS EXPANSION PLANS

Karachi BUSINESS RECORDER in English 21 Feb 83 pp 1, 6

[Text]

ISLAMABAD, Feb 20: Mohy-uddin Baluch, Federal Minister for Communications, has said that the government was determined to strengthen and expand the telecommunications system in Pakistan.

He was speaking at the inaugural ceremony of a one-day seminar on "telecommunication system in Pakistan". The seminar was arranged by Pakistan Telephone and Telegraph Department in connection with the world communication year, 1983.

The Minister said that he was hopeful that the development schemes of the T and T Department would be completed in time. He urged the officers and the staff of T and T Department to run the telecommunication system in accordance with the demands of the time and according to the hopes of the people.

The Minister said that technology was taking great strides day by day. The telecommunications systems had gone from EMD to digital switching. He said that new exchanges should be made inside the country, because dependence on foreign countries was not in the nation's interest.

He said that our engineers should attain more proficiency in modern technological fields so that they can handle new technologies and accelerate further development.

He hoped that the invitees of the seminar would give such suggestions that would be beneficial for the improvement of telecommunication according to our available resources, technical potential and the needs of the day.

Earlier, Brig Mansoor-ul-Haq Malik, Director-General, T and T, said, "the purpose of the seminar was to make public aware about our schemes and to give us direction through their valuable suggestions".

He said that the number of existing 400,000 telephone connections would be doubled in the next five years. For the time being only 30 per cent of the outgoing calls matured, but this deficiency would be met in the coming year. He said that in the next five years, a total of Rs. 13,000 million will be spent on the development schemes of telecommunications.

## COURTESY MONTH

He said that they were observing the current month as the

"courtesy month", in tune with the international telecommunication year so that every member of the T and T department could show his skill and efficiency to serve the people and to improve the system.

Mian Mohammad Javed, Chief Engineer, T and T, addressing the seminar, said that only 40 per cent of the faults in the telephones lines was external. He said that the rest of the 60 per cent was internal and was caused by negligence in using the sets.

S. Asif Ali Shah, financial advisor, T and T said that at present, it was not possible to give detail of direct calls. A set has been prepared for this purpose. 20,000 such connections would be installed next year. And if this experiment was successful, 200,000 such connections would be given in the near future.

Chaudhary Ishfaq Ahmed, General Manager, Islamabad-telecommunications region said that at present there were 32,405 connections in the capital. 2,300 new connections will be given in the next few months. He said that public-call offices would be installed in those areas where telephones facilities were not available.--APP.

CSO: 5500/4723

PAKISTAN, CHINA SIGN AGREEMENT

Karachi DAWN in English 27 Feb 83 p 1

[Text]

ISLAMABAD, Feb 26: Pakistan and China today signed an agreement here today to strengthen co-operation in the field of Radio and Television.

The agreement was signed on behalf of the People's Republic of China by Mr Hao Pingnan, Vice-Minister of Radio and Television and on behalf of the Islamic Republic of Pakistan by Lt-Gen. Mujibur Rahman Khan, Secretary, Information and Broadcasting.

Both sides exchanged greetings on the conclusion of the ceremony. Information Secretary, Lt-Gen. Mujibur Rahman Khan also presented gifts to the Vice-Minister and the members of the Chinese delegation which is currently on an official visit to Pakistan.

The ceremony was attended by Mr Wang Chuang Bin and senior officials of the Information Ministry, the Director General, Pakistan Broadcasting Corporation and the Managing Director of Pakistan Television Corporation.

Following is the text of the agreement:

With a view to strengthening the relations of friendship and coop-

eration between the Peoples Republic of China and Pakistan, the Chinese Ministry of Radio and Television and the Ministry of Information and Broadcasting of the Islamic Republic of Pakistan hereby have reached the following agreement:

**Article 1:** The two parties will exchange quarterly tape recordings of songs, music or Radio programmes as well as some TV films.

**Article 2:** To celebrate the national days of the two countries (China: Oct 1 — Pakistan March 23), the two parties may send relevant audio and video tape recordings of songs, music or special programmes to each other. The tape recordings should reach the Radio and TV stations of the other party at least two weeks before the national day.

**Article 3:** Each party will submit all programmes to the embassy of the other party's country. No payment whatsoever shall be required of either party for the programmes exchanged between and used by the two parties. Explanatory notes or synopsis in English should be attached to the songs, music, Radio or

Television programmes exchanged between the two parties.

**Article 4:** The Radio and Television programmes exchanged under the terms of this agreement may be freely used by each party as required.

**Article 5:** Both parties may send Radio and Television delegations and TV coverage teams to visit each other through mutual consultations.

**Article 6:** Concerning the expenses of the delegations or coverage teams sent by both sides, the guest party shall be responsible for the international travel expenses and the host party shall pay the expenses for boarding, lodging, transportation and medical treatment of members of the visiting delegation or team.

**Article 7:** This agreement comes into force from the date of signature and shall remain in force for a period of two years. If either contracting party does not raise in written for the question of abolishing the agreement three months before expiration, the agreement shall continue to be valid for another period of two years. —APP.

CSO: 5500/4723

## NEW DIGITAL ELECTRONIC EXCHANGES PLANNED

Karachi DAWN in English 23 Feb 83 p 6

[Excerpt]

ISLAMABAD, Feb 22: A plan was under consideration of the Government for the manufacture of new digital electronic exchanges at the Telephone Industry of Pakistan (TIP).

This information was given to the Majlis-i-Shoora during 'Question Hour' by the Federal Minister for Communications, Mr. Mohiuddin Baluch, here yesterday.

Giving the annual production capacity of TIP he said the TIP manufactures public telephone exchanges of 40,000 line units, private branch exchanges of 10,000 line units and 90,000 annually in addition to the manufacture of 1,200 teleprinters and 17,500 typewriters.

He said the TIP had the capacity to manufacture other allied equipments that is field equipments for Army, nation-wide dialling equipments, spare parts for maintenance of exchanges and installation of public and private exchanges.

At present due to envisaged change in technology, there was no expansion programme for current TIP's system, that is electro-mechanical system of exchanges, he added. He was replying to a question from Hafiz Mohammad Taqi.

### Less trunk call rates

Mr. Mohiuddin Baluch informed the Majlis that there was a proposal to reduce the rates of trunk call and NWD/network during midnight hours, when these circuits were lying unused.

Answering a question from Mr. Obaidur Rehman, he said only one-fourth of the trunk calls will be charged from 11.30 p.m. to 05.30 a.m.

He said the equipments to effect this reduction was being installed. The proposed reduction would come into force within the next three months, he added.

To a question from Hafiz Mohammad Taqi, the Communications Minister said that 209 seamen were recruited during 1981-82. He denied that serious irregularities were committed in making these recruitments.

Speaking on a question of Jam Mir Ghulam Qadir Khan of Lasbela, he said Rs. 270 million were incurred on national highways during 1979-80. It was the entire amount allocated for the purpose. He did not agree with the questioner that the actual amount spent on the project was more than the said amount, he added.

### Public call offices

On a question from Haji Said Karim Khan, about the complaints that a few telephones were not in working order in the Boneer Sub-division of Swat, the Minister said that those telephones might not be in order, which were working on non-standard lines erected on wooden ballies (logs).

Replying to a question from Qari Saeedur Rehman, he denied that some telephone operators of Rawalpindi and Islamabad have been recently held guilty for the embezzlement of large amount in the public call offices.

Answering a question from Maulana Qazi Abdul Latif, the Minister said that 288 new telephone connections were sanctioned for Dera Ismail Khan, since November, 1980 to-date. The applications received for new connections during the said period were 340, he added.

To a question from the same member, he said 20 applications were accepted for public call offices in Dera Ismail Khan during 1981 to to-date while the applications received for the purpose were 44.

CSO: 5500/4723



## QUESTIONS RAISED IN SHOORA ON TELEPHONE DEPARTMENT EFFICIENCY

Karachi DAWN in English 15 Feb 83 p 5

[Excerpt]

ISLAMABAD, Feb 14: It has been proposed to give 5,20,000 new telephone connections throughout the country during the Sixth Five-Year Plan period. This information was given by Mr Mohyuddin Baluch, Minister for Communications, to the Majlis-i-Shoora during the Question Hour this morning.

Answering a question from Syed Mohammed Khalilur Rehman Chishti, he said 1,52,500 telephones connections for Karachi and 15,300 connections for Gujranwala have been proposed.

Speaking on the question of Dr Mrs Ameena Ashraf, the Minister told the House that the number of international circuits was being increased from 236 to 282 by March, to 390 by July and to 600 by December this year.

He said the international circuits will reach 900 by April 1984.

Mr Mohyuddin Baluch further said the number of telephone operators had also recently been increased from 197 to 257 to cope with the increase in the semi-automatic international calls.

About the public complaints in booking calls through the Gateway,

he stated the difficulty was due to the manifold increase in the telephones traffic after the commissioning of the International Gateway Exchange.

To a question, the Minister said the nation-wide dialling facility to Sanghar will be extended by June 30, 1983. He hoped some cities will also be linked with the nation-wide dialling during the next financial year.

Replying to a question from Agha Sadruddin Durrani, he denied that the trunk telephone lines usually remain busy and inordinate delay occurred in making trunk calls. The delay occurred sometimes in the morning hours due to over-loadings of calls, he added.

Answering a question from Dr Mrs Ameena Ashraf, the Minister for Communications said 4084 applications are pending for new connections in Hyderabad city. He told the questioner that the expansion of 3100 lines stands approved for the city, out of which 2100 lines will be added during the current financial year and another 1000 lines will be provided in the next financial year, he added.

To a question from Mian Mohammad Niamur Rehman, the Minister said in view of expansion of Sialkot exchange by another 400 lines, it was anticipated to provide more than 350 new telephone connections, but, he added, there was no such commitment. He told the questioner that 250 telephone connections had been provided till now.

The Minister's reply was in affirmative to a question that 19 telephone metres were found faulty in April, 1982 due to negligence of the staff of Sialkot telephone exchange. Disciplinary actions had been taken against the persons found responsible for this.

Answering a question from Jam Ghulam Qadir Khan, Mr Mohyuddin Baluch, stated there was a 400-line auto EMD mobile exchange in district Turbat, Mekran division, which was in operation since Dec 25, 1982.

To a question from Qari Saeedur Rehman, he said 50 lines of telephone exchange at Ghaur Ghashti, district Attock, had been commissioned on Feb 6, 1983.

CSO: 5500/4723

EXPANSION UNDERWAY AT GATEWAY EXCHANGE

Karachi DAWN in English 22 Feb 83 p 8

[Text]

The interim expansion work of the International Gateway Exchange at Karachi is in an advanced stage of completion.

The total number of international circuits working from this exchange is now 255 and by the end of February it will go up to 278, says a T & T Press release.

International circuits for Bahrain have increased from 10 to 16 this month and are besides six incoming and two both-ways circuits to Dubai and additional circuits to Tehran and Hong Kong.

Additional international circuits to Doha, London, Muscat, Rome and Riyadh will also be provided during this month. Domestic

circuits are also being increased from the International Gateway Exchange to Karachi and up-country and in that chain 40 circuits have already been increased between the Exchange and Lahore.

To cope with the work, 86 additional telephone operators have been deployed for handling the semi-automatic international telephone calls and 34 more female operators will join by the end of May.

At present, about 3500 outgoing calls from Pakistan and about 15,000 incoming calls from foreign countries are being handled by the Gateway Exchange every day.

CSO: 5500/4723

## SAUDI ARABIA

### BRIEFS

PHONE-SYSTEM ORDER TO ERICSSON--Ericsson is getting a big new telephone deal in Saudi Arabia. The first contract, amounting to 170 million kronor, has already been signed, and the firm is counting on additional orders during the year, so that the total amount of the contract will go up to a billion kronor. Ericsson together with the Dutch firm Philips and with Canadian Bell has previously landed what is called the telephone deal of the century and developed the telephone system in Saudi Arabia into one of the most modern in the world. The new contract covers supply of a 6,000-line AXE station, telephone instruments, and transmission equipment for the military town of Kung Khalid in northern Saudi Arabia. The purchaser is the Saudi Arabian Ministry of Defense. Contracts for 24,000 more lines, mobile telephones, and staff locator systems are expected to be signed later this year. That will give the new town a fully operating telecommunications net. It was in January 1978 that Ericsson first drew up the contract with Saudi Arabia. Ericsson, Philips, and Bell have since developed the telecommunications net about 22 billion kronor's worth. Ericsson's share is somewhere around 6 billion kronor. [Text] [Stockholm DAGENS NYHETER in Swedish 17 Mar 83 p 9] 8815

CSO: 5500/2644

# SATELLITE AGE OPTIONS EXAMINED

Johannesburg THE STAR in English 12 Mar 83 p 4

[Article by Frederick Cleary: "South Africa Looking at the Options Offered by the Satellite Age"]

[Text] **Scene:** A remote farmhouse in the Northern Cape.

**Time:** The late 1980s.

A district nurse is attending a child which needs an emergency appendix operation. There is no time to fly it to hospital.

She telephones the nearest satellite receiving station, is connected to the Johannesburg General Hospital and turns on the family television set.

A surgeon at the hospital appears on the screen and, using a model, takes her carefully through the operation procedure. The child is saved.

**Scene:** A school classroom in the Northern Transvaal.

**Time:** The same.

A group of children prepare for a lecture. The teacher switches on the TV set and a lecturer in a studio at the University of South Africa in Pretoria appears on the screen and begins talking.

## TRANSMITTED

In both cases information has been transmitted and received by means of

a satellite in geo-static orbit 36 000 km above the Earth.

South Africa is in the Satellite Age.

Or it could be if the Government accepts a recommendation by a special technical committee studying the subject under the chairmanship of Mr Rudie Raath, Deputy Postmaster General (Telecommunications).

"We are only examining such a possibility, without any firm commitment," said Mr Raath.

The committee has been instructed to report back as soon as possible, but it will not be a hurried process, for the obvious advantages have to be weighed against the enormous cost.

Mr Raath said a set of three satellites — the necessary requirement — would cost at least R200-million at today's prices.

But, as it would be several years before such a system could be implemented, costs could soar accordingly.

The question then would be: would the expense be justified for a country with such a relatively small population, yet which already has an

extensive and costly micro-wave communications system?

Conversely, can this country afford to fall behind the rest of the world now and then decide to come in at a later date when costs would be even higher and satellite space would be crowded?

The world is moving rapidly into the satellite field, one as exciting as computers and the microchip.

This new dimension in communications is already operating in the United States, Canada and the Soviet Union.

## HURRY

If it wants to join the satellite club, South Africa will have to hurry, for already more than 100 satellites are circulating the Earth and frequency space is being taken up.

One of the members of the Raath Committee is Mr Douglas Mills, deputy Director General in charge of the SABC technical services and one of the country's leading communications experts.

He said in an interview that a South African-owned satellite system

would not, as some people think, increase the range of television programmes for viewers who wanted to search around the dial like they can on radio.

In order to pick up programmes from abroad, individual viewers would have to install enormously expensive receiving equipment.

SABC engineers were occasionally picking up Russian and other foreign programmes, but pictures were at times hazy and sound poor.

The SABC was already receiving daily news film and special events via the INTELSAT system, such as the recent Gerrie Coetzee fight in America and the annual Wimbledon tennis championships.

The main benefit for the SABC would be the ability to take superb quality television and radio broadcasts to the remotest parts of the country.

Also, SABC mobile teams could cover events in outlying areas, linking up instantly with Auckland Park in Johannesburg.

At present mobile teams have to establish microwave links, say to cover a boxing match at Mabatho, and record on video tape news events which cannot be transmitted directly.

#### ON-GOING

On the accessibility factor, Mr Mills said the SABC had already spent a great deal of money taking radio and TV via micro-wave to at least 90

percent of the country, and this was an on-going process.

From the Corporation's point of view, this had to be taken into account when considering the cost of the satellite system.

"However," he said, "the satellite system is an important step which would allow us to keep abreast of technological development. The rate of advancement in this field is so rapid now that if you turn your back for five minutes and look around again, you have lost out.

"I believe we should keep up, but it is not a cheap pastime.

"What I am mainly concerned about is that sufficient study effort is put into the satellite system.

"If we decide not to have one it must be based on a proper study of the country's requirements, and not just a feeling that it is not worthwhile.

"Conversely, if we do decide to go ahead and become involved in a satellite project, it must be based on a proper need and proper examination."

#### SHARING

The SABC would only want to share the satellite system with, say, such Government departments as the SADF, SA Transport Services, the Post Office and the Health and Education Departments, as well as the private sector, he said.

Satellite receiving centres would be relatively cheap — at today's prices roughly R2 000 each. So, the country could be blanketed with them and information

and services currently only available to the urban centres could, in time, be in reach of most communities.

BRIEFS

COMPUTER JOBS TURNOVER--Labour turnover and mobility in the computer industry are alarmingly high which is seriously hampering its efficiency. This is one of the findings of the report on manpower training and development carried out by the National Productivity Institute for the Computer Society of SA. The current overall labour turnover rate in the industry is 33 percent while the rate for programmers is as high as 40 percent. Most of the turnover is due to mobility--movement of staff within the industry. Last year mobility as a percentage of turnover reached a peak of 98 percent, while the average for the past four years has been 89 percent. The solution therefore lies in the characteristics of recruitment and reward systems of the industry, the report says. The four main reasons for staff leaving a company are: pay, fringe benefits, seeking promotion and stress. [Text] [Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 20 Mar 83 p 5]

CSO: 5500/126

IDA TO FUND INSTALLATION OF DIGITAL TELEPHONE EXCHANGE IN ZANZIBAR

Dar es Salaam DAILY NEWS in English 4 Mar 83 p 1

[Text]

ZANZIBAR town will get a digital telephone exchange system later this year after installation of a 9.64m/- exchange equipment by a Japanese firm, Messrs C. Itoh in September.

An agreement for the project was signed in Dar es Salaam yesterday between the Tanzania Posts and Telecommunications Corporation (TPTC) Director General, Ndugu J.W.J. Maeda and Mr. M. Itoh on behalf of his firm.

The project financed through a loan from the International Development Association (IDA) will enable the Isles have a 3,000 line digital telephone exchange and hence improve telephone services there.

Ndugu Maeda said that the equipment would start being delivered in the country by the end of June this year while installation work is expected to start in early July.

The present telephone exchange in the country is "analogue switching" which operates electro-mechanically, whereas the digital switching is computerised.

Installation of the new exchange in the Isles would mark a step forward in the country's ambition to modernise telecommunications network.

TPTC's drive is to replace the "analogue" system with the digital network to facilitate sufficient and efficient services, Ndugu Maeda said.

CSO: 5500/114

ZAMBIA

PAN-AFRICAN NEWS AGENCY TO BEGIN OPERATIONS MAY 1983

AB111132 Paris AFP in English 1126 GMT 11 Apr 83

[Text] Lusaka, 11 Apr (AFP)--The pan-African News Agency PANA will start operations next month, its technical consultant said in the Zambian capital at the weekend.

Richard Baffour said PANA headquarters in Dakar, Senegal, and its southern African regional center in Lusaka would begin working in May. He did not say when the other regional centres--Tripoli for north Africa, Khartoum for east Africa, Lagos for west Africa and Kinshasa for central Africa--would start up.

Mr Baffour said telecommunications equipment would be installed shortly to link Zambia with Dakar and the other six states in the southern African pool--Zimbabwe, Malawi, Mozambique, Botswana, Lesotho and Swaziland.

The International Telecommunications Union (ITU), United Nations Development Programme (UNDP) and UN Educational, Scientific and Cultural Organization UNESCO have given PANA 660,000 dollars to hire consultancy services required to get the agency off the ground after 20 years on the drawing board.

That money is in addition to grants for equipment from other sources.

CSO: 5500/131



GREENLAND TO RECEIVE TV VIA SATELLITE FROM ALASKA, CANADA

Greenland Home Government Arranging

Copenhagen BERLINGSKE AFTEN in Danish 4 Feb 83 p 7

[Article by Ulla Holtegaard: "People in Arctic Brought Closer Together by Satellite TV. Direct Broadcasts from Canada to Greenland and Alaska to Be Made for First Time This Summer"]

[Text] Media policy world history will be made in the Fourth World when the Eskimo organization Inuit Circumpolar Conference (ICC) this summer makes direct radio and TV broadcasts from its general assembly in Canada. For the first time ever all Eskimos or Inuits, as they call themselves, will be able to hear and see the same programs at the same time.

ICC is the common mouthpiece for Inuits in the Arctic lands and numbers 100,000 members spread over Alaska, Canada, Greenland and Siberia.

"For the time being our only purpose is to provide broad orientation regarding the general assembly in July in Frobisher Bay," says ICC President Hans Pavia Rosing. "In the longer term we hope that inhabitants of the Arctic will be able to have developed better radio and TV communications."

"It is not the idea for us to have 30 channels from Canadian TV. On the other hand we will exchange programs which are of interest to us. Inuit Broadcasting in Ottawa has made several outstanding programs which can also be beneficial to show to inhabitants in Alaska and Greenland."

The Greenland home government has approved ICC's purchase of a satellite ground station which either can receive signals via the Canadian Anik satellite system or both receive and transmit radio and TV signals. The satellite ground station is to be built in Nuuk (Godthaab). At present ICC is on the lookout for willing sponsors, since the cost of a satellite ground station ranges from 30,000 to 50,000 Canadian dollars. The Inuits in Alaska, however, have promised a considerable contribution.

"Siphoners" in Denmark

The initiative of making contact with kinsmen in Canada and Alaska in the communications area followed in the wake of the new TV system Greenland got on

1 November 1982. The system has become called "Simultaneous TV," because 75 percent of the 50,000-strong population from Ilulissat (Jakobshavn) in the north and down along the west coast to Nanortalik in the south can see the same TV at the same time.

Television communications are taking place via a radio link whose reserve channel transmits TV signals. The main channels supply towns with radio, Telex and telephone communications. Kalaallit-Nunaata Radio (KNR, Radio Greenland) now has a monopoly on everything shown on the screen. And when satellite communications with Canada become a reality this summer KNR has the program responsibility.

"Simultaneous TV" is a big change for Greenlanders, who previously have been accustomed to the fact that all TV business was in the hands of private individuals--often Danish businessmen--who ran local citywide TV companies spread all over Greenland with solid contact with "siphoners" in Denmark, who separately sent illegally copied video recordings of Radio Denmark's programs up to the towns northward.

"The idea is that Greenland's self-production is to increase in the years to come," says KNR Chairman Peter Frederik Rosing. For the time being the local TV companies and KNR's TV team of a journalist and five technicians have produced features and programs in Greenlandic. But 75 percent of the television broadcasting time will still be covered by Radio Denmark's programs. The initial problems, however, have been solved.

"A disadvantage with the radio link is that it is only one-way communications," says Peter Frederik Rosing. "It is impossible to create a Greenland current TV news program with features from local TV companies."

TV companies which are not included in direct television communications have video-recorded programs forwarded from Broadcasting House in Nuuk or from the nearest town which gets "Simultaneous TV."

#### Tremendous Technical Development

The radio link is a universal station in Greenland telecommunications. The link was built by the Greenland Telecommunications Service (GT) in the middle of the 70's, partly financed by EC money. Before this time Greenland lay fallow in the field of modern communications. Towns outside of the radio link have a satellite ground station which is linked to INUK-SAT. This is a satellite in synchronous orbit 36,000 km above the Caribbean Sea. The only exception is Ammassalik (Angmagssalik) on the east coast. Here the Telecommunications Service uses the American military link, the DEW link (Distant Early Warning), which is a warning link the Americans have built across the inland ice.

"Ammassalik will get its own satellite ground station this year and then we will terminate the lease," the telecommunications manager in Nuuk, Erik Villumsen, says.

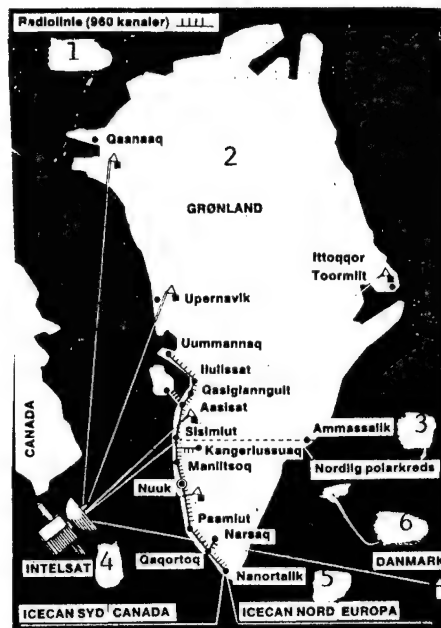


Figure 1.

Key:

- |                              |                         |
|------------------------------|-------------------------|
| 1. Radio link (960 channels) | 4. ICECAN South, Canada |
| 2. Greenland                 | 5. ICECAN North, Europe |
| 3. Arctic Circle             | 6. Denmark              |

INUK-SAT and the radio link cover Greenland completely with telecommunications. The satellite attends to most telephone calls to Denmark via the satellite ground station in Blåvand on the west coast of Jutland. Previously most telephone communications went through the ICECAN cable lying on the bottom of the Atlantic Ocean from Europe, through Greenland to the American mainland.

"INUK-SAT will never compete with the ICECAN cable," says Telecommunications Engineer Per Danker of the Greenland Technical Organization, "because satellites are more unstable than cables. They can always be shot down in case of war. In this way a superpower is in a position to cut off large sections of the world from a communications standpoint."

Commercials are the Deathblow

The UN has proclaimed 1983 "World Communications Year." A national committee has been appointed in Denmark with 31 interested organizations. The Greenland media

have been "forgotten" in the committee. KNR anticipated the communications year and is holding a media conference in Nuuk in August.

"It will be the deathblow for 'Simultaneous TV' if in the foreseeable future we can tap the whole world's stations," says Peter Frederik Rosing. "Therefore, we must make some sensible arrangements which will provide us with the required cultural protection. Otherwise we will be inundated by commercial television."

#### Concern for Greenlandic Culture, Language

Godthaab GRØNLANDSPOSTEN in Danish 23 Feb 83 p 7

[Article by "solsi": "'We Are Afraid of Being Run Head Over Heels.' TV Programs in Inuktitut Broadcast Five Hours Out of Total Broadcasting Time of 450 Hours in Northern Canada"]

[Text] While we here in Greenland have finally with great pains gotten simultaneous television introduced, Canadian Inuits are almost in the opposite situation: They are struggling hard to retard development a little and create an alternative to the Canadian-produced programs which are sent down to them from satellites.

"We are not afraid of lagging behind," says a Canadian Inuit journalist. "We are more afraid of being run head over heels."

It is impossible to get rid of the television programs from the south. As Inuit Broadcasting Corporation (IBC) Chairman Josepi Padlayat says, "We have realized that TV has come to stay. We must therefore try to find out how it can be used in a positive manner."

His own company, IBC, has been created as an experiment to provide an alternative to "Dallas," "M.A.S.H.," baseball games and the other programs which satellite TV gives to choose from. For the time being IBC is producing about five hours a week. The programs are broadcast via a satellite which otherwise is reserved for the Canadian Broadcasting Corporation (CBC) government radio and television company. Therefore, IBC has at its disposal only the broadcasting time of the least value-- i.e., most often the time after midnight.

#### Midnight Television

When Rosemarie Kuptana, IBC's program preparer, recently on behalf of her organization solicited from the Canadian Committee for Telecommunications a separate TV channel for programs for Inuits and Indians, she said that "Nature has made our land the land of the midnight sun. CBC has now also made it the land of midnight television."

"One of the things which Inuits have in common with the people in the south is that we like to sleep at night," she continued in a sarcastic tone. "We would also like our children to sleep at night and we like to see television during normal broadcasting hours." CBC's assignment of broadcasting hours for programs in Inuktitut--the language of Canadian Inuits--she characterized as the serving of scraps from the tables of the rich.

The few hours with programs for Inuits, which make up 80 percent of the population in the Northwest Territory, are part of a total broadcasting time of 450 hours divided over four channels. This is 10 to 15 times more than KNR's offering to Greenland viewers.

In order to find IBC's programs the viewer must be "an eager, experienced and patient turner of the channel selector," Rosemarie Kuptana told the Canadian Telecommunications Committee.

#### Neutron Bomb TV

She tried also to influence the committee's members by telling them of the violent influence TV is having on the culture of the Inuits. "There is great pressure being exerted, especially on our children, in the direction of adopting the invading culture and leaving their own culture and language in the lurch."

"We can compare TV's push forward from the south combined with the scarcity of Inuit TV with the effect of a neutron bomb. It is a bomb which kills people but leaves buildings unharmed. Neutron bomb television is television which destroys people's souls but leaves their bodies intact. It is television in which traditions, culture and language have no value."

8985

CSO: 5500/2641

FINAL APPROVAL GIVEN FOR TRIALS OF LOCAL RADIO, TELEVISION

Copenhagen BERLINGSKE TIDENDE in Danish 5 Mar 83 p 3

[Article by Helle Ravn Larsen: "Local Radio and TV Tests a Reality"]

[Text] Local TV and radio are now becoming a reality. Culture Minister Mimi Stilling Jakobsen today gave final broadcasting permission to 72 different associations, daily newspapers and special-interest organizations all over the country.

However, it will be some time before the first broadcast goes over the air. The Postal and Telegraph Service must first set up transmitters for tests.

Among the projects which have been given permission is the Copenhagen Daily Newspapers Cooperative. "In the first round we are working on putting a radio experiment on its feet. It will cover Copenhagen and Frederiksberg but it will still be a year before it is finished. We did not get permission for local TV this time around," says BERLINGSKE TIDENDE Administrative Director Chr. W. Reves.

Not all projects have received government backing, but those which did not receive money received a transmitter supplied at no cost at their disposal. The government grant amounts to 6 million kroner. The municipalities have promised a similar amount.

"We received a good 150 applications. The choice of projects was made out of consideration of the greatest possible variation both from the technical standpoint and in terms of content," says Mimi Stilling Jakobsen.

The minister points out that there still are technical problems with local TV. Therefore, she has asked the Postal and Telegraph Service to investigate the extent of the technical problems in addition to how it is possible to eliminate them.

The chairman of the local TV committee under the auspices of the Ministry of Culture, Gerda Louw Larsen, reports that within 14 days the committee will have specific budgets from the projects which have received government support, for approval in the committee.

8985

CSO: 5500/2640

STANDARD ELECTRIC KIRK EXPORTS PHONE, EXCHANGE EQUIPMENT

Copenhagen AKTUELT in Danish 14 Mar 83 pp 12, 13

[Article by Poul Erik Jensen]

[Text] Thirteen years ago, Kirk's Telephone Factories in Horsens were about to go bankrupt but succeeded in finding a buyer. The electronics enterprise continued under the name of Standard Electric Kirk (SEK) and has since then developed into one of the leading companies in the field of telephone production. Today, the SEK headquarters at Ane Stauning Road has 1,300 employees.

The Horsens enterprise will soon have more workplaces, in that it will now start producing EDP-screen terminals for the Danish Institute of Computing Machinery at Ballerup, Regnecentralen. The production has started, and Knud Jakobsen, director, estimates that the production will provide employment for 90 people.

However, SEK is best known for its modern phones, which have been extremely successful throughout the world. They are well-known in France, Great Britain and other European countries, but also Australia, Hong Kong, Singapore and the Arab countries are familiar with the equipment.

"The development of modern phones has created our biggest sales success till now," says Knud Jakobsen, director. "We were the first ones within the ITT concern. Today, 35 percent of the phones from ITT are produced on the basis of the Horsens model, and, by 1986, the percentage is expected to have risen to 80.

The popularity of our design also appears from the fact that three enterprises, two of which are located in Taiwan, manufacture telephones illegally on the basis of the Horsens model. The equipment is even sold under the brand name of "Model Denmark."

Former Kirk Employee

Knud Jakobsen, 60, was formerly employed at the Kirk Telephone Factories but, later on, switched to Standard Electric.

In order to advance, it is important to have a large research and development department. That this is an area which we stake much upon will appear from the very fact that the department has 175 graduate engineers. SEK has a total staff of 1,600, the vast majority of whom are employed at Horsens.

#### Private Exchanges

In addition to telephones, the company also produces PABX's, which are private telephone exchanges.

"About 12 months ago, SEK entered into cooperation with the Danish Institute of Computing Machinery. At the time, our involvement gave rise to much debate, but it is my conviction that the Danish Institute of Computing Machinery has not become less Danish from our participation. On the contrary, it has got new possibilities which it would never have had before."

"We merely form an economic minority within the Danish Institute of Computing Machinery," says Knud Jakobsen. He is chairman of operations of the board of directors of the enterprise. "It will appear from the accounts soon to be published that the deficit of earlier years has been changed into profits. And it is my guess that, in the course of the next 4 years, the Danish Institute of Computing Machinery will develop into an enterprise which is just as large as SEK."

#### Of Great Importance to Horsens

"SEK is today subsupplier of screen terminals to the Danish Institute of Computing Machinery. This year, we shall produce approximately 100 million kroner worth of terminals."

"The expansion in the course of the next few years of the Danish Institute of Computing Machinery, which employs approximately 500 people, will also benefit SEK at Horsens. It should not be forgotten that ITT is the world's second-largest producer of EDP equipment," Knud Jakobsen says.

7262

CSO: 5500/2647



DENMARK

PHONE COMPANIES COOPERATE IN NATIONWIDE ALARM SYSTEM

Copenhagen BERLINGSKE TIDENDE in Danish 15 Mar 83 Sect III p 5

[Text] The three Danish telephone companies have started developing an advanced, computerized alarm system, and the first subscribers are expected to be transferred to the new system next fall. On the basis of a cautious estimate, the network will cost approximately 50 million kroner on a national basis, and it is scheduled to be completed by 1987.

The telephone companies are Jydsk Telefon-Aktieselskab [the Jutland Telephone Company, Inc.], Fyns Kommunale Telefon [the Funen Municipal Telephone Company] and Kjøbenhavns Telefon Aktieselskab [the Copenhagen Telephone Company, Inc.]. They have recently placed an order for 1 million kroner worth of equipment with Søren T. Lyngsø, an electronics firm at Søborg, near Copenhagen.

"The Monopolies Commission finds it objectionable that Securitas, a private protection agency, should be the only one having access to our premises and permission to install alarm systems in our phone companies. That is why the companies decided to develop a system themselves instead," says J. Allesen-Holm, sectional engineer at KTAS [the Copenhagen Telephone Company, Inc.].

"We are now developing a system to which other private protection agencies may also be connected. Several large enterprises need advanced alarm systems for their protection, for example gate alarm, fire alarm, and water and pump alarms as well as control systems, for example of temperatures in premises with electronic equipment.

The system may sort the alarms, so that, via the telephone network, they are transmitted to the right locations, i.e. a fire alarm goes directly to the fire company, and, generally, so that alarms go to the private protection agency engaged by the company," J. Allesen-Holm states.

He adds that the telephone companies hope that connection to the alarm system in the future will be sufficiently inexpensive for elderly people to be able to afford it as well.

7262

CSO: 5500/2647

DENMARK

BRIEFS

MARINE RADIOS TO SWEDEN--Dancom A/S, located in Pandrup, which makes marine and mobile radios, has signed a million-krone agreement for delivering of marine radios to the Swedish Telecommunications Agency. The Danish firm won the order in competition against several foreign firms. The Telecommunications Agency, which performs the same functions as the Telgraph Administration here in Denmark, will receive exclusive rights for these Danish VHF-marine radios in Sweden. [Text] [Copenhagen BERLINGSKE TIDENDE in Danish 25 Mar 83 p 2]

FIRST PUNCHCARD PHONE SYSTEM--On 15 April credit-card telephones will be put into operation in Roskilde, which is to be used as a test city by KTAS [the Copenhagen Telephone Corporation]. The new telephone, which will supplement coin telephones, operate according to a punchcard system, and this is the first time this system is being used in Denmark. [Text] [Copenhagen BERLINGSKE TIDENDE in Danish 26 Mar 83 p 7]

CSO: 5500/2654

FEDERAL REPUBLIC OF GERMANY

NATIONWIDE TELETEXT SYSTEM TO START IN SEPTEMBER 1983

Hamburg DER SPIEGEL in German 14 Mar 83 pp 80-85

[Text] Transferring money, ordering merchandise, booking trips--inhabitants of the FRG are soon to be able to do all this and more at home: From September on the Bundespost plans to introduce Teletext nationwide, communication through television. By 1986 there are supposed to be 1 million people participating in the computer network.

The Pink-Red Discreet mail order house promises in an advertisement on the screen: "Which bi-pair is looking for partners? He is 45 and fulfills every desire."

Pastor Stephan G, Brass from Hildesheim consoles the television congregation with the display panel "Do not despair, there is an answer."

The Hannen brewery in Willich asks citizens via the screen for "your signature in favor of the purity ordinance" over a beer.

These and numerous other offers, pieces of advice or tips have been reserved until now for about 8,000 citizens of the FRG in Berlin and Duesseldorf. The unusual TV program was made possible through a new offer by the Bundespost, which was tested in the exclusive circle under the name Teletext.

What the screen has been offering in addition to the normal TV program for almost 3 years in Berlin and Duesseldorf is soon to flicker across the screen everywhere in Germany. In September, after the radio and TV exhibition in Berlin, the Bundespost will start the nationwide introduction of Teletext.

By the end of this year, about 50 cities and communities will be able to receive the information texts. By the end of 1985, 750 locations are to be linked up to the new communications network. Three-quarters of all inhabitants of the FRG would then have the opportunity of using their television in a totally new way.

In the opinion of media experts, they will then have completed the first step into the electronic communications society. According to media researcher Helmut Kromrey from Bochum, the introduction of this additional technology into the household "could initiate a more intense change in our everyday culture than the expansion of television programs."

Unlike broad-band cables, which have to be installed first at a high cost in investments, a cable network covering wide areas is already available for Teletext. Btx, the abbreviation for the new supply of information, could therefore gain more rapid acceptance than all the other planned media.

Teletext, developed almost 10 years ago in England as Viewdata, is the result of linking the telephone and the television set. The Bundespost installs a small piece of supplementary equipment between the two (one-time connection fee: DM 55).

This so-called modem converts the impulses coming over the telephone line into data signals. The signals are made visible in the form of script and image on the TV-screen by an additional part in the television, the decoder.

When a Teletext user switches on his television and dials the telephone number 190, he is connected to the nearest main Teletext office of the Bundespost. On this line he gains access to a gigantic supply of information that is stored in the postal computers.

A table of contents, called a search tree, is intended to help the Btx customer find his way in the extensive computer labyrinth of information, advertising and offers of services. With the numbers on the touchpad of the TV remote control, the customer can work his way to the information he wants, using the search tree--he can also dial each page of information directly, similar to a telephone number.

Each Btx page contains 24 lines of 40 characters, which are filled with letters, colored graphics or colorful screen images. Although there is a great variety in the way the pages can be arranged--the images on the screen are always silent and motionless. The telephone line's transmission capacity is inadequate for motion or sound.

The information on the screen--and this is also something new--does not come from the publicly licensed television organizations, but from the authorities, associations and private enterprises, from banks and newspapers publishing houses, from businesses producing hand-made goods and mail order houses. They can all rent the storage space of the postal computers for a fee.

Since the Btx link not only makes it possible to access the pages stored directly in the postal computers, but also permits direct dialling to the data banks of the companies that are connected, the range of the ways it can be applied is immeasurably great.

One of the decisive advantages of Teletext, compared with Videotext, which it has been possible to receive nationwide since 1980 with an additional part in the television, lies in the dialog that private citizens can conduct with the computers of the Bundespost main office or with the data banks of outside computers.

With the assistance of the Everyman data bank, citizens of the FRG can conjure up on their home screens, individually at in a matter of seconds at any time, timetables and stock market rates, news briefs and notices of events, supermarket specials and information from the Warentest [product testing] foundation.

The Btx customer can page through mail order house catalogs electronically and place an order immediately for what he wants; he can book trips, pay bills and determine the current balance in his checking account.

Btx reduces every encyclopedia to a hopelessly outdated reference work--for no printed book can be as current as the telelexicon. Finally, the new postal service offers citizens of the FRG the opportunity of sending electronic greetings to every other Btx participant.

In the opinion of the Bundespost, it will be primarily doctors, druggists, book dealers and insurance representatives who will use Btx in their professions. Companies with numerous branches could make it possible for all the outside offices to access the internal house computer in the head office.

The Bundespost believes that the almost unlimited possibilities of the medium will ensure that Teletext expands within a few years to become a valuable mass service. And when a sufficiently large number of Btx customers are linked to the network, Teletext, in the words of the former Minister for Post & Telecommunications Hans Matthöffer, will "continue to grow unstoppably like an avalanche."

The avalanche is supposed to start moving soon. The Bundespost plans to install 40,000 Btx connections this year. By the end of 1986, about 1 million subscribers, among them 400,000 private homes, are supposed to be hooked up to the network. By the end of the 1980's, the Bundespost would like to be switching more than 3 million Btx lines.

This opens up a market worth billions to the state concern and to the equipment companies. The Bundespost alone plans to spend about DM 500 million by 1986. All in all, the Diebold consulting firm has calculated, Btx will reach "an investment volume of DM 2 to 3 billion fairly effortlessly" in the early years.

However, media experts doubt that Btx will spread so rapidly and become such a fast business. They are figuring on 600,000 participants, instead of 1 million in 3 years.

This skepticism is not unfounded. At this time it is not even certain whether Btx can be introduced nationwide on 1 September. All the planning is based on a cabinet resolution of the social-liberal coalition, which is not to be approved until 21 March by the responsible postal administration council.

Three days prior to that, the prime ministers of the Laender plan to agree to another Federal treaty, in which numerous important details, such as data protection regulations or the identification of advertising, will be decided.

The Bundespost has created uncertainty among those offering Btx by its fee policy. Not until mid-January, 8 months before the start, did Minister for Post & Telecommunications Christian Schwarz-Schilling announce how expensive the tele-information service was to be for those providing it and those using it.

In future, anyone who wants to dial the timetable or the movie program onto the screen over the telephone will have to pay a monthly basic charge of DM 8 and the additional telephone charges (local rate).

The Btx bills for those offering the information are determined by the area of distribution. A dealer who wants to announce his information only regionally, in addition to a basic monthly charge of DM 50, has to pay a storage fee of 1.5 pfennigs per page per day. With 100 pages, the regional advertiser can pay up to DM 2,000 per year.

It is more expensive for those with nationwide exposure, such as associations, banks and publishing houses. They have to send at least DM 5,000 annually to the Bundespost for a 100-page program. Mail order houses, like Quelle or Otto, and the publishers of encyclopedias, which reserve 10,000 pages or more in order to be able to present their offerings reasonably completely on the screen, will have to be prepared for an annual Btx bill of about DM 300,000.

Compared with the costs for mail order catalogs or for advertisements in regional daily newspapers, the Btx price does not seem excessive. Still, the companies reacted with protests against the scale of charges. Middle-class advertisers above all find the charges inappropriately high.

Another important decision for nationwide introduction of Btx was also made at the last minute. Not until 15 December did the Bundespost establish the final details for the technical standard of the Teletext decoder.

In contrast to what happened in the field tests, in which the Bundespost worked with the British Viewdata system, an internationally agreed upon standard will be used in the future. This so-called CEPT [acronym not positively identified] standard guarantees not only better telecommunications across inner-European borders--it also allows more characters to be transmitted and, one day, it could be accepted worldwide, like the Pal [Phase Alternating Line] standard for television.

In order to be able to use the functions of the CEPT standard, the decoders, which convert the telephone signals into images in the TV sets, have to be built completely from scratch. And that takes some time. Inexpensive decoders can only be made a reality, if the equipment manufacturers utilize all the advantages of microelectronics: They have to develop a chip that can be manufactured in enormous numbers. The development of this type of chip is extremely complicated. Only one German company, the Philips subsidiary Valvo, has ventured to start the work for this important component. Not even Siemens could be enticed by the possible billion-mark business.

Valvo was not able to begin with the work for the so-called Eurom chip until the beginning of 1982, when the basic parameters of CEPT were established. So it has been clear for months, that at the introduction in September 1983, there will not be a reasonably priced Btx decoder available--in 1977 the Bundespost was still counting on a price of between DM 200 and 500.

In the meantime, the electronics industry is assuming that the Eurom can be used at the end of 1984 at the earliest. At the beginning of 1985, the Bundespost calculates, televisions with a Btx link could then be sold at an extra cost of DM 500 to 600, compared with a normal set. Later the extra cost would fall to DM 300.

The decoder which the Bosch subsidiary Blaupunkt showed in the fall is also not suitable for the mass market. The "mini-jumbo" needs 300 chips. A Btx television, with the input keyboard, costs about DM 14,000 from Blaupunkt.

Because of the decoder problems, the entire Btx timetable was jeopardized. As a consequence, in September the Bundespost was seriously considering dropping the European standard again, or delaying startup by 1 year. The central computers in the Btx head office in Ulm, which are supplied by the computer giant IBM, will also not be able to fulfill nearly all the functions by the time of the opening of the radio and television exhibition.

The Bundespost owes it to one of the smallest German television manufacturers that it can still start in the fall with Btx, the Franconian Loewe company. Loewe developers Kurt Heine and Hilmar Missbach did not rely on Eurom, but, in the strictest secrecy, developed their own decoder, which uses only 30 chips and is scarcely larger than a cigar box in size.

This allows Loewe to push the added cost for the Teletext television down to about DM 1,000. That is still a handsome amount. Still, the Loewe development created a stir in the industry. The Kronach company will probably be the sole supplier who will be able to sell Btx television sets (66 cms) for DM 3,000 at the exhibition in Berlin.

Loewe boss Helmut Ricke is betting primarily on a professional clientele, to whom Teletext equipment with an input keyboard will be available for about DM 6,000. The man at Loewe does not expect much at present from business with private households.

His skepticism is based on the results of the experiments in Duesseldorf and Berlin. In Duesseldorf the Bundespost had appealed to a half-million citizens in November 1979 to apply to participate in the Btx experiments. Only 2,800 responses were received, of which just over 1,500 finally participated in the experiment.

Even Btx freaks, who play for many hours each day in front of the screen with the postal computer, affectionately called "Jo-Jo," are often disappointed by the new medium. They complain about a lack of currency and about the time-consuming search procedure, and they are demanding a restriction on advertising.

The fascination of the new medium dissipated rapidly for many participants. After the initial curiosity, most of them only play a Btx text into their homes once a week--as a rule for no longer than one-half hour.

Experts are still assuming that the new offer on the screen will find acceptance--even if more slowly than many who are making propaganda for Btx imagine today; and that is not necessarily a bad thing.

The reason is that the new means of communication is most suitable for eliminating several tens of thousands of additional jobs, in trade or in the banks. If the bank transfer can be typed in at home, if the order for the mail order house can be placed at the screen, that will cost another few jobs.

For example, the approximately 100,000 employees at the Lotto and Toto ticket offices would be in acute danger. When Teletext finally spreads nationwide, it will be possible to type in the lottery numbers at the screen.

9581

CSO: 5500/2645

## BRIEFS

EBU SATELLITE--The Finnish Broadcasting Company will participate in the three-year satellite experiment of the EBU [European Broadcasting Union], which is starting in 1986. The European Space Authority (ESA) is providing free of charge a channel from the new L-Satellite for use by EBU's company during the three year period. At the administrative meeting of the Finnish Broadcasting Company on Friday [25 March], General Director Sakari Kiuru stated that also Austria, Belgium, Greece, Ireland, Italy, the Netherlands, Spain, Portugal, Switzerland and Sweden have announced that they are joining the satellite test. The L-sat test will produce a pan-European TV programming, in which all the named countries will participate. This programming can be used by the EBU company directly or, as an example, it can be sent over a cable network. Groups interested in music, youth, local languages, etc., could play a part in deciding the Pan-European program selections. General Director Kiuru mentioned that L-sat is offering a cultural-export avenue for the Finnish Broadcasting Company to reach the European public. [Text] [Helsinki HUFVUDSTADSBLADET in Swedish 26 Mar 83 p 7]

CSO: 5500/2661



GREECE

RADIO STATION PLANNED FOR CRETE

Athens TA NEA in Greek 2 Mar 83 p 8

[Excerpts] The largest radio station in Greece is about to be built in the Siteia area of Crete. Its power will be 300 kw and it will be broadcasting the Athens programs; however, it will have the capability of airing a special local program as well as covering the entire Aegean, Crete and Cyprus.

In order to find the most suitable location for building the station, three ERTI [Greek Radio and Television] engineers, Messrs. Khrysomallis, Giannakakis and Kritikidis, visited Siteia and located two possible areas for building: the area of Mbondas of Polis and the "dependency" of the Toplou monastery.

The area of Mbonda is better than the monastery dependency; however, a study must be made to ascertain whether the radio station can coexist in the future with the projected Siteia airport.

It must be pointed out that an area of 150 stremmas of flat, earthy ground, without natural obstacles towards the north, east and west, is necessary.

It is noted that the radio station will employ approximately 40 employees, 20 of whom will be technical personnel.

9731

CSO: 5500/2642

GREECE

BRIEFS

TV EXCHANGES WITH POLAND, GDR--The recent trip of the ERT [Greek Radio and Television] director general, Mr. G. Romaos, to Poland and East Germany resulted in agreements for radio and television program exchanges. [Text] [Athens TA NEA in Greek 2 Mar 83 p 8]

9731

CSO: 5500/2642

NATION'S INDUSTRY TO BENEFIT FROM TELE-X SATELLITE PROJECT

Oslo AFTENPOSTEN in Norwegian 9 Mar 83 p 28

[Article by Knut Lovstuhagen]

[Text] "The Tele-X satellite project is not just a research and development program. Perhaps of even more importance is that the satellite will be a product with which money can be earned. Its two TV channels will broadcast television throughout the eastern Nordic countries and it will establish a new system for data communications in that same region. From an industrial standpoint, Tele-X means that industry in Norway, Sweden, and Finland will be able to establish themselves in a field with enormous growth potential. We never would have invested in this project if we did not believe it would be a commercial success."

Administrative director Fredrik Engstrom of Ryndbolaget told this to AFTENPOSTEN. Ryndbolaget is responsible for this joint Norwegian, Swedish, and Finnish satellite project. Norway will pay about 200 million kroner or 15 percent of the 1.4 billion kroner the satellite will cost by the time it is launched into orbit during the second half of 1986. It will be launched by the European carrier rocket Ariane from French Guiana in South America. The rocket already has been ordered. "The project has been under way even during negotiations with Norway and we are now in the main design phase," Engstrom said.

Elektrisk Bureau will be the largest participant in Tele-X among Norwegian businesses. Among other things, Elektrisk Bureau will develop and produce small earth stations that will be mounted on the roofs of office buildings and used to test commercial communications. Elektrisk Bureau also will produce the control system that will allow the earth stations to work together to form a Nordic network.

"From an economic standpoint, it is more favorable to produce equipment for the support system than the satellite itself," Engstrom said. "The biggest money is to be found in the area of earth and monitoring stations. While developing the Tele-X technology, we have investigated not only the Nordic market, but also the world market. Business communications is a field that will grow dramatically and we believe we have a strong position in the market

as a result of our investment in earth stations that will make it simple and feasible to use satellites for business communications. Our stations will cost from 200,000 to 500,000 kroner, while our main competitors will produce facilities costing up to 10 million kroner.

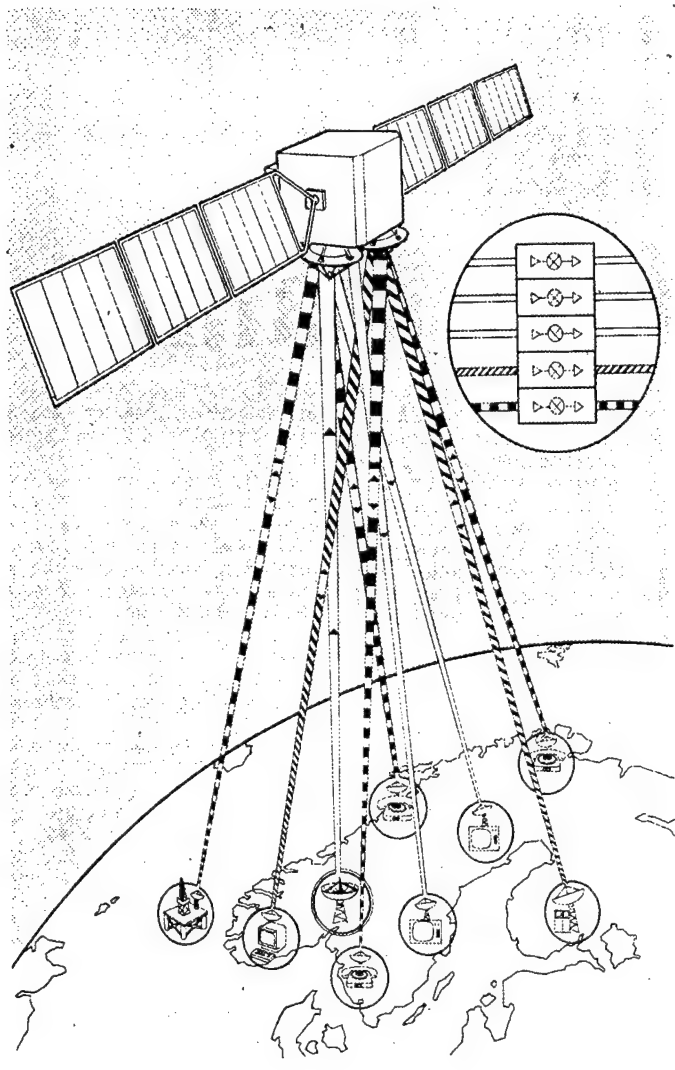
As it stands today, Norwegian industry will receive orders for just under 100 million kroner in connection with Tele-X, although we are paying twice that amount to be included in the project.

But Engstrom cautioned against being blinded by the percentages in the Tele-X contract. "The industry has the opportunity to enter a field that could yield great profits in the future. In addition, the joint Tele-X project could be the first step toward future cooperation in the area of satellite communications," he said.

Business communications will be the most important component in the experiments conducted with Tele-X. But the satellite also will have two active TV channels plus one reserve channel. Broadcasts from Tele-X will be received throughout the Nordic countries, except in Iceland, with antennas less than 1 m in diameter, probably somewhat larger on oil platforms in the North Sea. On the Faroe Islands antennas with diameters of 2 to 3 m will be used. So far it has not been decided what type of television tests will be made with the satellite.

The Tele-X project involves only one satellite and the question is what will happen if the launching is unsuccessful and the satellite drops into the ocean. Of course, this is the main source of worry in all satellite projects, but Engstrom said that the project would be insured to the hilt for the possibility that the launching might be unsuccessful, that Tele-X could go dead after entering its orbit, and for the subsequent loss of income. In addition, he is certain that Tele-X will be followed by a second satellite. Tele-X also will lay the groundwork for Nordsat, if that project ever becomes a reality.

Tele-X will be launched into a so-called geostationary orbit 36,000 km above the equator at 5 degrees west longitude. In this orbit the satellite will move at the same velocity with which the earth rotates, thus standing still with respect to a point on the surface of the earth. The satellite will weigh about 2 tons at the time of launching.



The Tele-X project will include not only tests involving business communications, but also television transmission to receivers in Norway, Sweden, and Finland. The satellite will be launched into orbit during the second half of 1986.

9336  
CSO: 5500/2646

PORTUGAL

BRIEFS

DIRECT INTERCONTINENTAL DIALING--Starting tomorrow, more than 80,000 telephones on the CTT's [General Administration of Post Offices, Telegraphs and Telephones] south and central regions' systems will have a direct dialing capability for calls to the United States of America, Brazil and Mozambique. At the same time, the Algarve (Faro, Tavira, Portimao and Odemira) and the lower Alentejo (Beja, Castro Verde and Moura) systems, which have a total of 42,000 subscribers, will also be able to dial directly to the Azores and Madeira autonomous regions. Until now this had only been possible from some Lisbon districts. More than 80 percent of the CTT telephones currently have direct dialing to 17 European countries (which accounts for 98 percent of our European telephone traffic). Intercontinental direct distance dialing existed only in some districts of Lisbon and, since June 1982 on the continent, in the Coimbra and Figueira da Foz systems. Direct dialing will now also exist in the Leiria, Santarem, Torres Novas, Abrantes, Portalegre, and Ponte de Sor systems as well as in those southern systems already mentioned. The Azores and Madeira autonomous regions also already have direct dialing to both sides of the Atlantic. However, calls into these regions still require operator assistance. This will soon change because it is planned that all of Europe will be able to dial directly to Madeira within a few weeks and within a year to the Azores. [Text] [Lisbon DIARIO DE NOTICIAS in Portuguese 11 Mar 83 p 24]

9935

CSO: 5500/2648

DEMONOPOLIZATION OF STATE TELECOMMUNICATIONS AGENCY URGED

Stockholm SVENSKA DAGBLADET in Swedish 7 Mar 83 p 7

[Article by Erik Lidén: "Demand for Free Competition Increases"]

[Text] The National Telecommunications Administration's monopoly yields profits in the billions, 2.5 billion kronor in 1981-1982. Not many know that the part of the Administration's business that is exposed to competition operated at a loss of at least 81 million kronor during the same period.

The National Telecommunications Administration shows relatively openly in its annual report that there was a turnover of 455 million kronor in the competitive branches telefacsimile, teletext, radio, alarm service, computer technology, and telephone equipment. Expenditures ran up to 536 million kronor according to the official economic report, so that the real loss is at least 81 million kronor, or nearly 20 percent of the receipts.

Since Ulf Adelsohn (M [Moderate Coalition Party]) as minister of communications initiated a loosening up of the monopoly in 1980 the demand for a freer competition in the telecommunications field has increased. The International Chamber of Commerce, which has 250 big member companies in Sweden, wants to open up the entire telecommunications field to free competition, not just the telecommunications lines and radio relay links.

Feasible Alternatives

In a letter to the government, Lars-Erik Thunholm, bank director and chairman of the Swedish national committee, points out that there are commercially feasible alternatives on the private market which cannot be sold today.

The committee also writes that most of today's telecommunications equipment should be allowed to be sold freely, and points to the rapid development of mobile phones, in which the telecommunications administration today has a monopoly.

The committee concludes its letter with a request that the guidelines for Swedish telecommunications policy be reviewed and that the possibilities of competition in the Riksdag resolution of 1980 be considerably expanded.

Minister of Communications Claes Elmstedt (C [Center Party]) went a step further in 1982 when he approved the private firm Comvik's mobile telephone installation which the telecommunications administration, in spite of the type approval, wanted to prohibit.

Precisely the testing activity is being criticized by many, and the computer firms in Sweden want an impartial testing institution outside of the telecommunications administration.

#### Limited Frequency Space

For data transmission the private market has extremely limited frequency-band space at its disposal. The telecommunications administration has agreed to increase the space somewhat as of 1 July 1983.

The telecommunications administration, which has a monopoly on the new teletext service, still cannot supply equipment a year after its introduction. The system will not be tested out until May-June. The private firms have long been queued up, but will not be allowed to sell equipment until after 1 November 1983.

For the time being private equipment cannot even be tested on the teletext net.

Today the telecommunications administration has a complete monopoly on subscribers' telephone exchanges. The computer firms are demanding that the line be drawn at the connection with the net; then it should be up to the customer to decide on his own exchange equipment. The telecommunications administration insists that breaking up the monopoly requires a new Riksdag resolution.

#### Fourteen Thousand Jobs

Tony Hagström, director general of the telecommunications administration, has said in various connections that the monopoly today is worth 14,000 jobs within the telecommunications administration. In spite of protests from private communications firms, he has not taken back the statement.

By way of comparison it may be mentioned that when the postal service became more competition-intensive similar employment figures were brought out.

Through an increase in volume, the mail service has always managed with smaller personnel reductions by natural attrition.

Every year the telecommunications administration tests about 350 different private installations and the clients get an answer after 4 to 6 months. Since 1981 the following new products have been put outside the monopoly: telephone answerers, number recording apparatus, signaling devices, electric alarms, buzzers, etc., holding relays, directory computers, and acoustically coupled modulator-demodulators for portable use with restricted transmission speeds.

#### Wireless Telephones

Wireless telephones that permit communication via ordinary residential telephones outside of the ordinary telephone net have been rejected by the telecommunications administration in ways that have attracted a good deal of



attention. Svensk Radio, a small firm at Lomma, in Scania, had developed wireless telephones and sold them in Sweden and abroad.

That situation ended on 1 July 1981, when the telecommunications administration asserted its monopoly position for direct telecommunication.

In February 1982 the police, with the assistance of the telecommunications administration, confiscated what remaining stocks the firm had--2,857 wireless telephones worth nearly 3 million kronor at retail.

Svensk Radio went into bankruptcy. All 35 employees were dismissed on 22 March and the owner, Jan Beirup, almost lost his shirt.

"It is still a source of bitterness that the telecommunication administration's bureaucracy prevents private development and sale of wireless telephones in Sweden," says Beirup.

Preparations are now being made for the launching of expensive equipment, worth nearly 10,000 kronor, which no private person can buy, but must rent from the telecommunications administration. In that way the monopoly is rescued for a little longer.

#### U.S. Model

"It is high time for good, cheap equipment to be allowed to be used on the telecommunications net. In the United States millions and millions of wireless telephones are being sold, which are used in the garden, in the garage, on the beach, and during visits to neighbors."

At the telecommunications administration in Farsta they are unwilling to comment on the development of a wireless telephone. Really those who are dealing with the matter consider that all interested parties should wait calmly until 1984, when the telecommunications administration's product is ready.

A market survey done in 1981 showed that even then 200,000 Swedes wanted to buy wireless telephones. From 1,000 to 2,000 wireless telephones are illegally brought into Sweden every month. Telephones that often interfere with ordinary telephone traffic because the installations are imperfectly done.

"A common, reliable European system will be ready in 1984," says Gunnar Malmgren, head of the frequency section of the telecommunications administration. "The products being used today interfere with each other and with TV reception."

"Today the monopoly protects the telecommunications administration; no other wireless products are allowed to be sold," says Jan Lundin, of the marketing section of the telecommunications administration.

In the Riksdag Anders Björck (M), among others, has discussed the telecommunications monopoly:

"I feel that the government must proceed as soon as possible under the act the Riksdag passed in 1980 and establish free competition in most telecommunications fields. Today's monopoly is horrible in a market economy."

8815

CSO: 5500/2644

END